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THE OIL AND GAS JOURNAL

Volume 33
Number 24

November 1, 1934

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OIL MAN'S CALENDAR

November

8-9—Los Angeles, Calif., American Association of Petroleum Geologists, Pacific Section, Mayfair Hotel.

12-15—Dallas, Tex., annual meeting, American Petroleum Institute.

15-17—Pittsburgh, Pa., American Institute of Chemical Engineers.

22-23—Tulsa, fourth annual National Road Oil Congress.

December

7-8—Fort Worth, Tex., fifth annual meeting, Independent Petroleum Association of America.

19-21—Omaha, Neb., Nebraska Petroleum Marketers, Inc.

January

7—New York, Society of Automotive Engineers, annual dinner.

8-10—Milwaukee, Wis., annual convention and Equipment Show of Wisconsin Petroleum Association, Parkinson Hotel.

17-18—Minneapolis, Minn., Northwest Petroleum Association, Minnesota division, West Hotel.

March

21-23—Wichita, Kans., American Association of Petroleum Geologists, annual meeting.

April

8-13—Houston, Tex., Oil Equipment and Engineering Exposition.

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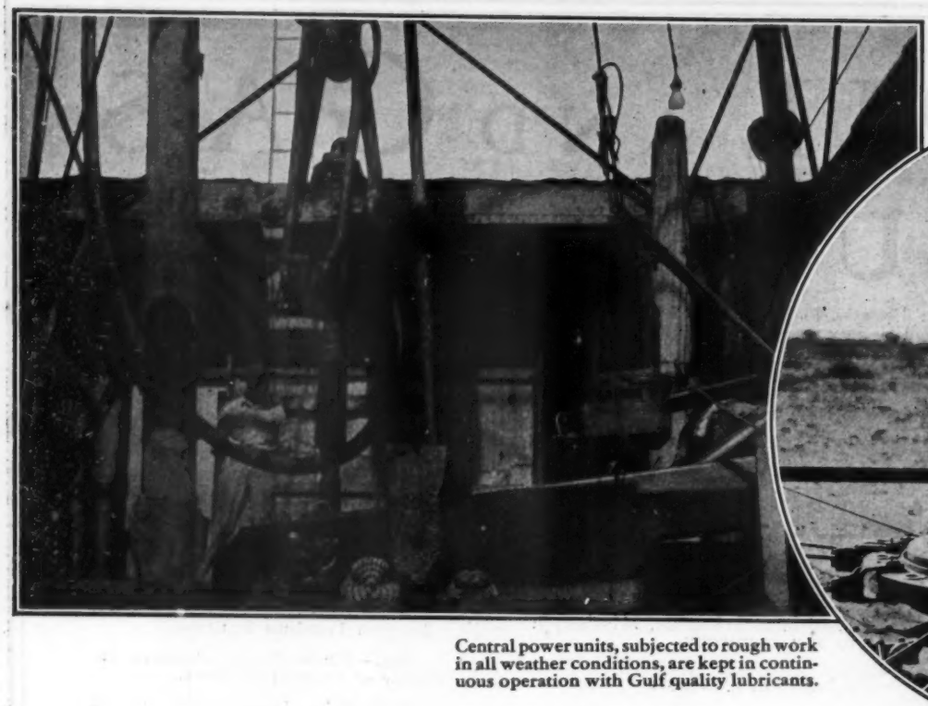

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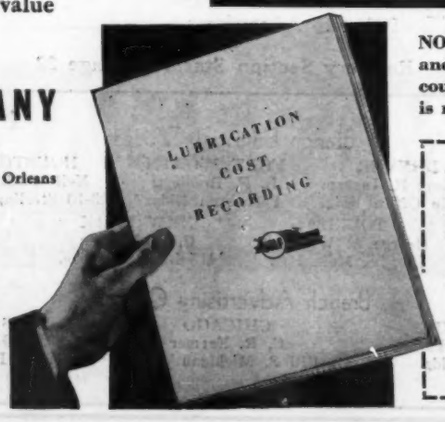

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Price Structures Are Stronger but Industry Waits Proof of Continuous Effective Enforcement

By ANDREW M. ROWLEY

MORE hope is being expressed that threatened crude oil price reductions by major purchasers will be avoided. The industry is marking time and watching very closely developments in East Texas. Stoppage of shipments from that area of refined products made from crude oil produced in excess of state allowables is having a strengthening effect on the gasoline market throughout the country. The extremely weak gasoline market which has prevailed for some time has been the cause of the agitation in some quarters for lower crude oil prices and, as the gasoline market strengthens, there is less reason for reducing posted crude price schedules.

The larger crude oil buyers feel much of the pressure for a reduction in prices has been removed for the time being but they point to the fact past experience shows a very material slowing down of "hot" oil operations always has occurred at the commencement of new drives at enforcement but that such slowing down, in the past, has been but for a very brief duration. They say it will take some time before it can be determined definitely how effective present efforts will be and whether the movement will continue for more than a comparatively short period.

The movement into markets of gasoline manufactured from crude oil produced in excess of allowables has been the prime factor in the shaky price structure just as large sales of low priced gasoline to dealers have made possible many of the price wars which have rocked the marketing branch of the business. Court action instituted by East Texas operators or refiners has "upset the apple cart" frequently in the past and the question uppermost in the minds of most persons at this time is "how long will the lid be kept clamped and what court action, if any, will be taken by those interests which heretofore have opposed State and Federal regulations?"

There is every inclination on the part of major buyers of crude to maintain prices at present levels but there is no getting away from the fact many, if not all, refiners have been losing money because of the extremely low prices prevailing for gasoline. It was just a question of how long these refiners could stand this loss.

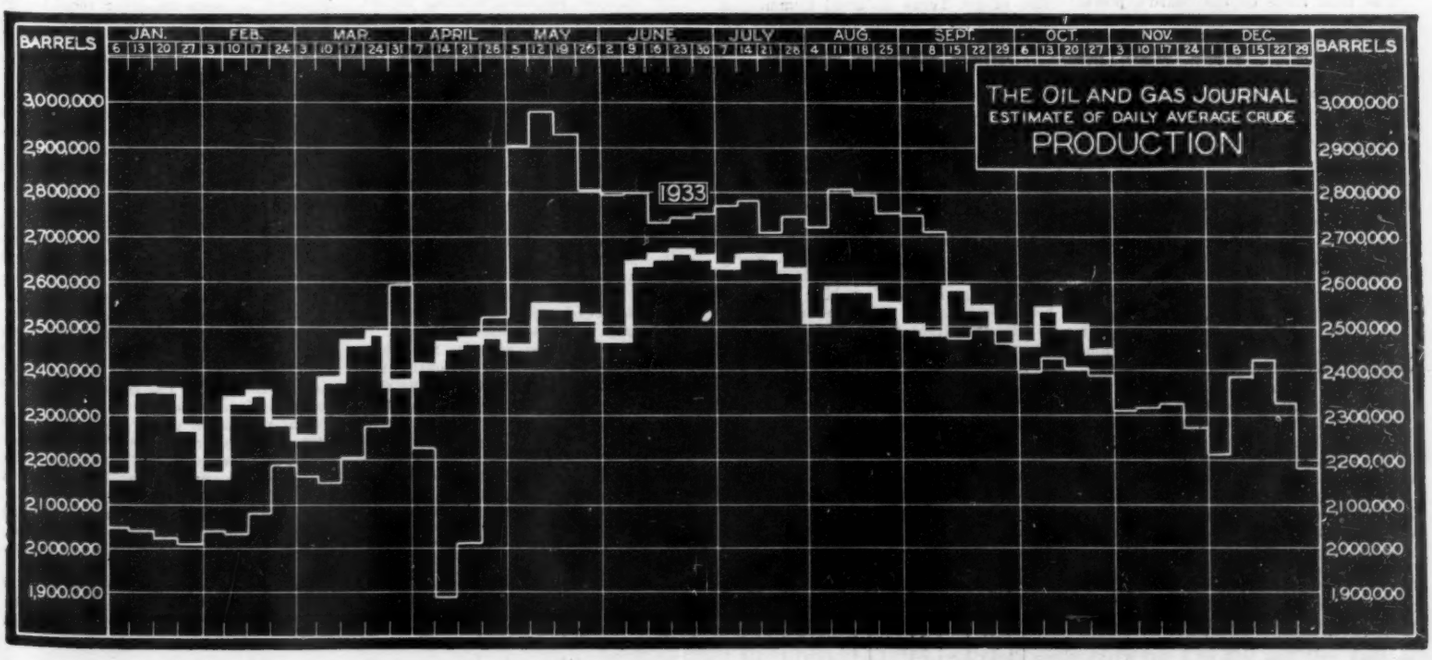
Some time will elapse before the industry can determine definitely the effect of present enforcements efforts in East Texas. Meanwhile the situation is improving and this improvement will continue as long as low priced gasoline made from "hot" oil is kept out of the market. Any slackening in the movement to prevent these shipments or any adverse court action would be reflected almost immediately in the general situation.

Crude Oil Production in the United States

Estimated daily average production for the week ending October 27, a comparison with previous week and the Federal allowables follow:

	Federal allowable		
Oklahoma—	Oct. 27	October	Oct. 20
Oklahoma City	125,300	.....	158,950
Seminole-St. Louis	86,235	.....	93,425
Remainder of State	228,015	.....	228,000
Total Oklahoma	439,550	457,400	480,375
East Texas—			
Lathrop	195,453	.....	198,997
Kilgore	149,124	.....	188,522
Joiner	168,752	.....	146,234
Total East Texas	513,329	.....	533,753
West Texas	138,423	.....	139,073
North Central Texas	84,609	.....	84,776
Texas Panhandle	58,825	.....	54,774
East Central Texas	42,824	.....	42,925
Gulf Coast—Texas	162,053	.....	167,573
Southwest Texas	58,674	.....	59,527
Total State of Texas	1,058,737	956,100	1,082,101
Kansas	124,755	123,700	123,650
North Louisiana	23,925	.....	23,890
Gulf Coast—Louisiana	76,726	.....	71,875
Total Louisiana	100,651	88,300	95,755
Arkansas	30,675	30,200	30,685
Eastern Fields (except Michigan)	103,500	97,300	103,000
Michigan	28,874	29,000	29,247
Rocky Mountain area	93,310	91,500	94,900
California—			
Santa Fe Springs	35,250	.....	37,000
Long Beach	54,750	.....	62,000
Mountain View	12,250	.....	10,450
Elwood	10,000	.....	9,250
Kettleman Hills	60,000	.....	56,300
Remainder of State	292,750	.....	297,000
Total California	465,000	452,300	472,000
Total United States	2,445,052	2,325,800	2,511,643

Decrease 66,591 Bbls. Daily.



Tender Board Halts Oil; One Prosecution Begun; Buying May Be Resumed

The Federal Tender Board, left to right: Ralph Horween, executive assistant to Administrator Ickes, Norman L. Meyers, chairman and J. Howard Marshall

By HUGH D. MALLON
Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., Oct. 29.—After less than a week during which the Federal Tender Board has functioned, a marked decrease in the amount of "hot" oil from the East Texas Field is reported, while belated activity by the Department of Justice is also assisting in stopping the flow of illegal oil. The activities of both of these organizations have apparently helped the industry over the immediate crisis of a cut in the posted price of crude.

The next pressing problem which faces the Petroleum Administration is to find a solution for the demoralized marketing structure of the industry. As a temporary expedient a renewed gasoline buying program will probably be adopted.

Establishment of the Federal Tender Board is being hailed as the most constructive move which the Petroleum Administrative Board has yet taken in the year and more of its existence. A number of refiners, who it is claimed by the Petroleum Administration have become consistent code violators, have closed down since the Tender Board began to function.

It is claimed that since the board swung into action there has been no transportation in interstate commerce of any crude petroleum or its products except that accompanied by a tender approved by the Federal Tender Board. To avoid delay in shipping legal crude and its products the board has been sitting day and night and Sunday to hear and investigate requests for tenders.

The first force of the board's power was felt Saturday when the railroads refused to move 90 tank cars loaded with gasoline. No tender accompanied this shipment, and the railroad, at the request of the Tender Board, stopped the cars in transit.

Cars Without Tender Stopped

Waybills had been obtained from the railroad the day before the Federal Tender Board started to function. This was brought to the attention of the board, and with the co-operation of E. N. Stanley of the Texas Railroad Commission, the cars were checked after the board assumed office and took jurisdiction over such shipments. They were found to be empty, but during the night they were loaded with gasoline and shipped. When the railroad was notified that it was moving cars without the necessary tender, the railroad immediately ordered the shipment stopped.

Investigation disclosed that about 40 of the cars were destined for Houston, Tex., at which point the contents were to be reshipped along the Atlantic Coast. The other cars were billed to areas in the Middle West as far north as Indiana and Illinois.

Reports here indicate that the Tender Board is very conscientiously studying each application for certificates of clearance. Tenders for interstate movements of crude oil are not gone into as minutely as tenders for petroleum products, as most of the crude is moved by pipe line to gathering points on the Texas Gulf where it is reshipped to points along the Atlantic seaboard.

Petroleum products, however, represent the bulk of the "hot" oil which is moving out of Texas into interstate commerce. Consequently no tenders for such movements are being approved until the legality of the oil used in manufacturing the products is clearly shown. An example of this is the fact that on the first day the Board functioned approximately 50 tenders were approved for interstate shipment of crude oil, while only one was approved for shipment of refined products.

As a further check to assist the Tender Board in determining the legality of oil and refined products the definition of Texas as Refinery District No. 5(a) and 5(b) has been changed. Formerly 5(a) has included East Texas, but under the new order East Texas is designated as District No. 5(c).

Department of Justice Acts

Although late in getting started the Department of Justice is finally swinging into action and before long will be a very valuable adjunct to the Federal Tender Board. Temporary restraining orders were obtained by the department officials from Judge Bryant to prevent the shipment in interstate commerce of oil produced in excess of the allowable.

The injunctions were obtained against the McMurray Refining Co., located at Arp, Tex., and two railroads which had been carrying the products from the refinery. All evidence in the case had been compiled by the Petroleum Administrative Board officials, with the co-operation of the Texas Railroad Commission. Hearings for a permanent injunction will be held in a few days.

These are just a few of several cases which have been prepared by the Petroleum Administration, in conjunction with the Railroad Commission and the Department of Justice, and the next few days promises definite action by all the law enforcement agencies of the government combined. At the present time, it is claimed there is practically no "hot" oil in the field.

One of the first results of the drying up of "hot" oil is beginning to worry Petroleum Administrative Board officials. Complaints are reaching the board headquarters, both in Texas and here in Washington, that because of the dearth of crude oil caused by this drive, several of the small, independent refineries will be unable to get enough oil to keep their plants running. This question is being carefully considered by the Administration, but no solution has as yet been reached by that board.

An equitable arrangement will no doubt be made, however, whereby these plants will be assured of an adequate supply of crude at all times. The Petroleum Administration is firmly convinced that refineries of this type have a definite place in the industry, and all precautions will be taken to preserve them.

A general cut in the posted price of crude oil is not now anticipated by either members of the industry or officials of the government. Despite the fact that several independent purchasers in the industry have announced reductions in the price they will pay for crude oil, there is an evident lack of enthusiasm on the part of major buyers to follow these cuts.

As a result of the attempt of this small group to cause a general lowering of the posted price they have lost several pipe line connections with producing properties in the East Texas Field, and because of the refusal of the major companies to follow their lead, it is believed they will be forced to raise their prices back to the general level.

The majority of the industry, apparently, is satisfied to wait until results of operating under the Federal Tender Board can be more accurately judged be-

(Continued on Page 18)

East Texas Clamp Declared the Tightest Since National Guard Held Field

By L. E. BREDBERG

FORT WORTH, Tex., Oct. 29.—There has been practically an absolute transformation in the East Texas situation since the Federal tender board got into action on the morning of October 25. Prior to that time refined shipments by tank cars ran around 500 cars per day. Present reports state they have fallen to around 25 cars. For the week ending October 21 there were 3,455 cars of refined products shipped out, including 1,238 cars of gasoline, totaling 10,740,400 gallons, 806 cars of fuel oil making a total of 7,527,000 gallons, 117 cars of kerosene totaling 948,400 gallons, and 129 cars of casinghead gasoline. The next refined shipment report will show a change unparalleled in this field except when the National Guard shut in the wells two years ago.

By Saturday there were 20 of the 30 refineries shut down in the Gladewater area, and 49 plants out of the 83 in the field. Other plants were reported ready to shut down, some unable to obtain sufficient crude, some unable to pay the posted price and run on their daily allowables, and others shutting down because they had products in storage for which they could not obtain tenders.

The transportation agencies are taking the Federal tenders most seriously. One railroad refused to ship a 1-gallon sample can of oil until a Federal tender was obtained. The other two roads stopped en route, refined products on which Federal tenders had not been obtained. These shipments covered 91 cars of refined products, part billed to points for coastwise shipments and the remainder north.

So far there has been no court attack on the Federal order. L. R. Martineau, special assistant to the Attorney General of the United States, has been placed in full charge of the prosecutions in Texas, and is expected to file more suits immediately, having already obtained a temporary injunction against a group of refiners, in Federal Judge Bryant's court, hearing being set for November 2.

Since the Federal tender hearings have stopped practically all of the interstate shipments of refined products, refineries have started transporting their products by way of trucks to circumvent the Federal orders. The Railroad Commission is expected to issue an order requiring an approved tender with each truck load of gasoline and if the loads are not approved there will be no Federal tender granted.

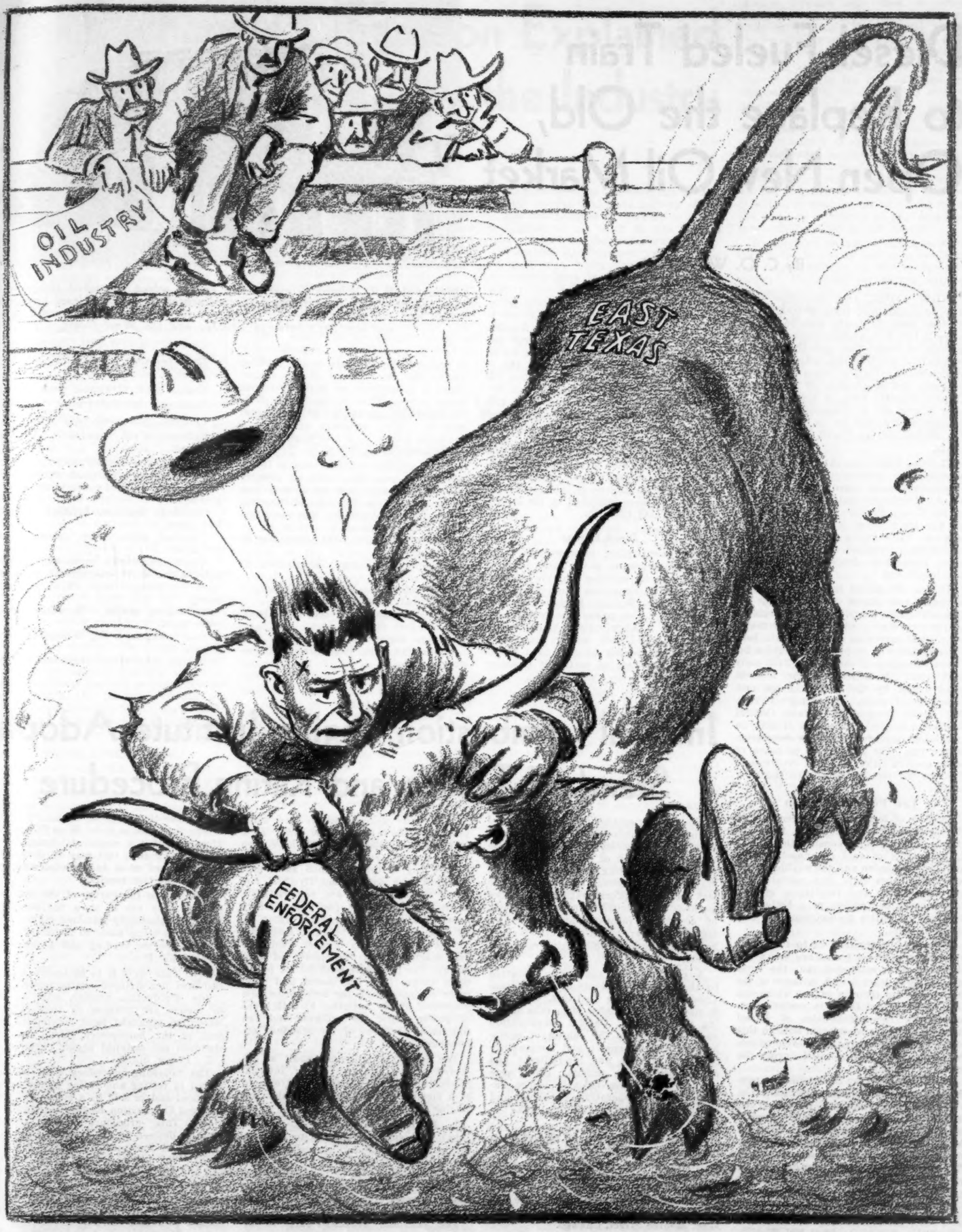
East Texas has been set up as a separate refining district which may help in maintaining an equitable division of gasoline production quotas within the district. All refineries in East Texas are reported to have now signed the new gasoline purchasing plan.

Signatures are being obtained for a new bill to be submitted to the legislature asking for an appointive "Natural Resources Commission" composed of three men, preferably one business man, one oil attorney, and one petroleum engineer, to serve for six years. This commission would administer the laws pertaining to the oil and gas industries, giving all its time to this work. The commission would be maintained by a tax of one-fourth of 1 cent per barrel of oil produced in the State. The governor, the lieutenant governor, and the speaker of the house would each have an appointment. It is doubtful if the bill can be passed.

Intrastate tank car shipments had fallen to around 180 to 200 cars today, whereas they have been around 300 to 350 cars per day.

The Government may place another Federal tender board on the Gulf Coast to check oil and refined products offered for coastwise shipment.

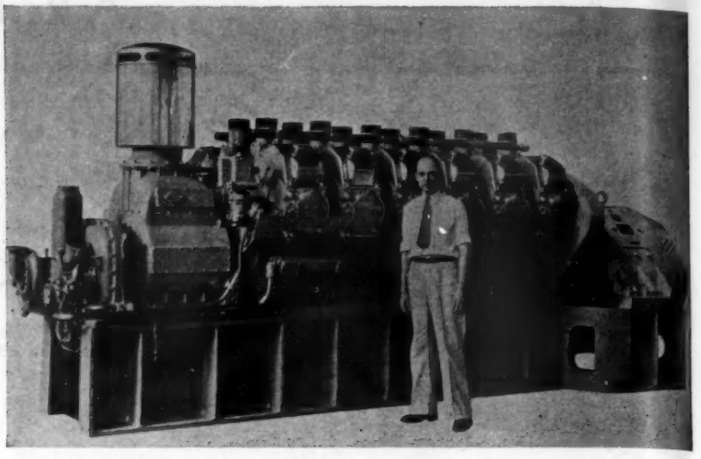
A Real Contest



—Drawn exclusively for The Oil and Gas Journal

Diesel-Fueled Train to Replace the Old, Open New Oil Market

By C. O. WILLSON



Main 900 H.P. Winton Diesel fueled engine which furnished the power for the new type train in its transcontinental trip. The Diesel powered train will shortly be placed in regular 36 to 40-hour service (two nights and one day) between Chicago and the West Coast

NEW YORK, Oct. 29.—The Union Pacific streamlined train M-10001 which arrived here 56 hours and 55 minutes after it left Los Angeles consumed 2,070 gallons of Diesel fuel and 15 gallons of lubricating oil. The run, which attracted nation-wide attention when it knocked 14 hours and 32 minutes off the previous transcontinental time, is believed to assure a new era in transportation development which will be as important to the oil industry as it will be to the railroads.

"I think I may say that rail travel has already been revolutionized, though developments must come gradually," said W. A. Harriman, chairman of the board of the Union Pacific, as he arrived here on the train along with 56 other passengers. "Eventually this type of train is certain to replace the old. It is too much faster and cheaper to run not to win in the end."

This is the second train of its type to be built and placed in service by the Union Pacific. Based on the performance of the two trains, two additional trains which will have nine cars each have been ordered and will be placed in service between Chicago and the West Coast early next year. Indicative of the interest being taken by the public in the new Diesel-fueled train, approximately 100,000 people jammed the Grand Central Station during the two days it was on exhibition there following the completion of the run. The train is to be taken to other eastern cities and then returned to Chicago for regular service to the west coast.

Low Fuel Consumption

Interest of local oil people centered in the performance of the train from the standpoint of fuel consumption. The 2,070 gallons of fuel consumed by the main Diesel engine and the auxiliary unit which furnishes light and operates the air conditioning and ventilating system, cost 4 cents per gallon, or a little over $80 for the entire transcontinental trip of 3,340 miles.

Accurate comparisons as to fuel costs with steam-powered trains are not available, but it is estimated that the ratio of costs is at least 5 to 1 in favor of the Diesel-powered train, a saving which has been an important factor in centering attention on the possibilities of Diesel power for rail transportation both in this country and Germany. The developments in Germany have been rapid during the past two years.

The Diesel fuel for the train was purchased from the Sinclair Refining Co. with deliveries from its Parco, Wyo., refinery. The Parco refinery, formerly owned by the Producers & Refiners Corp. has been furnishing Diesel fuels to the Union Pacific for several years. The fuel used on the transcontinental trip is known as Sinclair Parco distillate and has the following specifications:

Gravity	40 A.P.I.
Flash	132° F.
Viscosity	32 at 100° F.
Pourpoint	20° F. below zero
Cetane No.	61

Distillation

10 per cent	381° F.
90 per cent	494° F.

The train was fueled at Los Angeles, Omaha and Chicago. One hundred gallons of the same fuel was used in an oil burner for heating the train and this is included in the total of 2,070 gallons. Oil consumed for heating will be an important factor in the operation of this type of train during the winter months. The average consumption was 1.6 miles per gallon. It is said that the consumption was much less than this average in the water level trip from Chicago here on the New York Central lines. The 15 gallons of lubricants used on the trip were furnished by the Pennzoil Co. of Oil City, Pa.

Diesel Engine

The power plant used in this train which incorporates many new features in design in addition to the streamlined and all aluminum construction was designed by Winton Engine Corp. of Cleveland. The power generating unit comprises a 12-cylinder, V-type two-cycle, Winton-Diesel engine, direct connected, but flexible coupled to a direct current generator of sufficient capacity to transmit continuously to the traction motors the rated output of the engine. There is in addition an auxiliary engine driven generator set powered by a Winton two-cycle engine of 110 horsepower capacity. This auxiliary engine is a two-cycle 5-inch by 7-inch engine, Winton design.

Due to the increasing interest in Diesel engines for pipe lines and oil country use, wide interest was manifested here in the detailed specifications of the main power unit for the train. The main features of the engine are:

Horsepower rating, 900 horsepower at 750 r.p.m.

Number of cylinders, 12-cylinder, V-type.

Bore and stroke, 8-inch by 10-inch.

Crankshaft, special, six crank.

Main bearings, seven removable bushings, 6¾-inch diameter bore.

Pistons, nickel-aluminum alloy.

Connecting rods, drop forged "I" section.

Rod bearings, removable bushings, 6½-inch diameter bore.

Engine block, fabricated steel.

Crankcase, fabricated steel.

Cylinder heads, individual cast.

Exhaust valves, quadruple, 2¾-inch diameter.

Intake ports, cast in cylinder liner.

Valve tappet adjustment, automatic.

Camshaft, integral cams, hardened and ground.

Camshaft bearings, fourteen, babbitt, line bored.

Camshaft drive, chain, automatic adjustment.

Engine auxiliaries, mounted on gear case, spline drive, mechanical governor, dual oil pump, large capacity water pump.

Scavenging blower, three-lobe, twin rotor type.

Fuel injection, solid, Winton unit injectors.

Engine lubrication, crankcase supply.

Internal Combustion Engine Institute Adopts Standard Testing and Rating Procedure

No greater service could be rendered equipment manufacturers, engineers and government agencies than the formulation and adoption of a standard method of rating and testing internal combustion engines for industrial applications. The lack of any uniform rating or testing methods has resulted in a wide diversity of procedure, inconvenient and confusing to buyers; oftentimes discouraging and unfair to reputable engine manufacturers.

A committee of engineers, appointed by the board of directors of the Internal Combustion Engine Institute, has been in session for a number of months studying this question. Careful consideration has been given to the subject of equipment, fuels, barometer and temperature readings, altitude and intermittent and continuous service ratings. These were studied most conscientiously before undertaking the preparation of a simple and practical procedure, valuable alike to buyer and seller.

The recommendations of this committee were submitted to the directors of the institute early this summer, have since been approved and adopted, and issued in printed form. Copies may be obtained by writing to the secretary of the Internal Combustion Engine Institute, 111 West Monroe Street, Chicago.

In view of the importance attached to this subject, however, the newly adopted testing and rating methods are being presented below in complete form. It is to be observed that standards have been set up for both engines and power units, a bare engine being defined as a unit equipped with water pump, flywheel, flywheel housing, intake and exhaust manifolds, oil level gauge, pad covers where accessories are not furnished, water inlet and outlet pipes, breather assembly, fan drive pulley, fan bracket, generator and magneto drive (exclusive of coupling). The procedure outlined for power units covers both the closed and open types equipped with the accessories now prescribed by the institute. In both types of power units, the radiator and fan equipment are part of the standard accessories.

The following procedure shall be observed in testing and rating internal combustion engines produced and/or sold by a member of the Internal Combustion Engine Institute:

1. Engines.

(a) All engine tests are to conform to the standard S.A.E. procedure with the following exceptions:

A bare engine is to be used with fixed carburetor setting. Allowance is to be made, however, for changing the spark at various speeds.

The fan and generator are to be omitted.

The speed of a given run is not to vary more than plus or minus 10 r.p.m.

The fuel used is to be 56 to 60 octane. However, if the engine is designed to use a better fuel, this may be done, but the fuel used must be recorded and appear in the test results.

(b) When the curves of the test are plotted, they are to show the performance of a laboratory standard engine with corrections being made to 29.92" of mercury barometer reading and a temperature of 60° F.

(c) This curve is to be known as the standard net stripped engine curve.

(d) Production engines, after a run to reduce the friction to that of the laboratory standard, must develop 95 per cent of the horsepower shown on the standard net stripped engine curve.

2. Power units.

The following procedure shall be observed in testing and rating power units produced and/or sold by a member of the Internal Combustion Engine Institute:

(a) This procedure covers power units as defined by the Internal Combustion Engine Institute in Section 3 hereof.

(b) The power unit is to be tested and the curves established as prescribed for bare engines, except that the power unit is to have the full equipment specified by the engine manufacturer for operation in actual service.

(c) The curve sheet is to give a list

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Oil Exchange Operation Explained for Consideration by the Industry

As a basis for an intelligent consideration of the suggestion advanced that an oil exchange might be beneficial to the petroleum industry, the accompanying explanation of the mechanics of operation of an exchange has been prepared by William W. Michaels, manager of the Tulsa office of W. J. Wollman & Co., who has made an extensive study of the petroleum industry and how various situations and conditions existing in the oil business would operate under an oil exchange.

The first step in the formation of an oil exchange would be for representatives selected by the petroleum industry to meet with representatives of established exchanges to work out details.

Membership in an oil exchange would be restricted to responsible persons able to meet obligations and qualifications which would be entailed by such membership.

An exchange dealing in oil would have as its medium of exchange storage receipts representing crude oil actually in storage. The value of these receipts would be based upon the free market price on the floor of the exchange and would be settled at the designated point of delivery by the actual delivery of oil. Every move towards the formation and final working of an exchange must have in mind the keeping inviolate of the integrity of these receipts as these receipts are actually the currency of the exchange and from the first should be regarded as highly as are warehouse receipts for grain and other commodities.

Storage a Prime Factor

Coincident with the formation of an oil exchange the matter of storage is of prime importance and first consideration Storage may be located anywhere in the United States. It may be owned by private individuals, companies or organizations formed for such a purpose. All of such storage must be recognized as public storage, and would be under the supervision as to practice and storage charges of the proper committee of the exchange.

It must be understood an exchange acts solely as an agent between buyer and seller and has no financial interests in any way with public storage. It would act simply in a supervisory capacity with but one object in view—to keep storage receipts inviolate.

Operation of an exchange should not disturb proration or any existing state laws or regulations, or any policies of the petroleum industry. Nor should it interrupt in any way the private handling of oil or any contracts relating to the production, transportation, storage and delivery of oil as such practices may now exist.

Co-operation on the part of companies owning large quantities of crude oil and storage for oil would facilitate formation of an exchange and its early operation. Such storage, if approved by the exchange could be used as public storage against which storage receipts of the exchange could be issued, which in turn, would be dealt in on the exchange.

Individuals or companies now owning crude oil in storage, with the facilities offered by an exchange, could have this stored crude gauged and classified and have receipts issued by the exchange covering this oil in storage. They then could use these receipts as collateral or sell them on the exchange. They should be good in any bank in the United States as there could not be finer collateral.

Each transaction on an oil exchange is a contract to make future delivery for a specified quantity of oil at a designated place in the same manner as many other commodities are handled on existing exchanges. Also there would exist in connection with an oil exchange a spot market for the immediate delivery of oil.

For the purpose of trading a standard grade of oil, such as has already been adopted by the petroleum industry (36 gravity Mid-Continent crude) would be used as a basis. Differentials, such as already have been figured by the industry, would be in effect between different grades of crude and different fields.

Special grades of crude oil or production of certain fields, desired by buyers because of special lubricating value or for its octane content, can be dealt in on an oil exchange, and deliveries made just as such transactions are handled today. Such crude would be held in separate storage, as is done now and would be batched through pipe lines, or transported by tank car, just as deliveries are made at present. There would not be any comingling of such crude with other grades where special grades are specified.

To the small and large producer, inventory losses in the time of large production, and to those alive to existing conditions, could be almost entirely avoided. This would be accomplished by price insurance afforded by the futures contract market of an oil exchange. By price insurance is meant a more equitable adjustment between buyer and seller which in this case allows the seller to use his judgment to foresee the price he is willing to take for his oil or the buyer the price he is willing to pay at a certain definite time in the future.

Transactions on an oil exchange would involve the buying or selling of contracts for future delivery of the actual commodity. Purchases for future delivery are made on the basis of prices ruling on the exchange on the day the futures contract is entered into. Prior to the maturity of the futures contract the contract may be liquidated at the discretion either of the purchaser or the seller by the sale or purchase of an equivalent contract. Contracts which would remain open at the maturity would be liquidated by the actual delivery of the oil.

As we see it as a commonplace example of how an oil exchange would affect the small producer without refining facilities, the following is offered: He could continue to sell his production under contract to his present pipe line connections at an arbitrary price agreed upon between him and the buyer or at the price ruling on the exchange. Or he could arrange for his present pipe line connections to store his oil at a storage charge mutually satisfactory, against which he would receive storage receipts if such storage were considered in the category of public storage by the oil exchange. The exchange undoubtedly would recognize properly supervised storage owned by existing and present pipe line companies as suitable public storage. Or he could use railroad facilities for transporting his crude to storage. In storing his crude the producer would pay transportation and storage charges. When he desired to sell his crude he simply would sell his storage receipts on the exchange whose facilities at all times would be at his command.

For the Small Refiner

For the small refiner without his own production the exchange would offer a medium of purchase of future requirements. By the purchase of future contracts he would be assured of an adequate supply of crude as he desired. Completion of the contract is assured through the operation of an exchange. He thus is relieved of the necessity of carrying burdensome stocks over an excessive period of time which under present conditions he must maintain to insure operation of his plant.

Integrated companies also would be relieved of the necessity and heavy expense of carrying vast quantities of crude oil in storage as they, too, could supply all their requirements through the purchase of future contracts. Their present storage facilities could be utilized either privately or publicly in which latter case they would derive a revenue from the use of storage used as public storage. It has been estimated that the cost to the petroleum industry at this time in carrying 350,000,000 bbls. of refinable crude in storage amounts to between $50,000,000 and $70,000,000 a year.

Operation of an oil exchange does not involve any complications not already overcome on existing exchanges. There are numerous and sundry grades of grain, tobacco, hides, rubber, wool, eggs and other basic commodities dealt in today on recognized exchanges to the benefit of the industry and oil presents no problem which cannot be solved in the same manner as such problems have been solved on other commodity exchanges.

Oil Men Express Views on Feasibility of Exchange for Petroleum Industry

Widespread discussion has been engendered by the suggestion made in The Oil and Gas Journal of October 18 that the petroleum industry give consideration to the matter of establishing an oil exchange. As reported a week ago a committee of the Commodity Exchange in New York has been appointed to make a study of the subject and is working on the matter. The question also is being investigated in San Francisco where an exchange firm of national prominence has been asked to take up the matter and where, it is said, 1,200 dealers in the Pacific Coast area favor the establishment of such an exchange. The Board of Trade of Kansas City also is said to be interested in the suggestion.

Oil men generally are frank to admit they are not familiar enough with the mechanics of an oil exchange or the matters which would be involved in its operation to determine at this time whether an exchange would be beneficial to the petroleum industry. Some oil men say "I do not believe an exchange would work in the oil business" but they immediately add they do not know enough about the subject to advance definite reasons either for or against the idea.

Answer Others' Objections

It has been a rather interesting coincidence that during the past week objections advanced by some oil men have been answered completely by other oil men although the latter did not then feel an oil exchange was practical. Many of the objections raised have to do with the matter of grading crude oil and with the desire on the part of many refiners of purchasing certain grades or the production of certain fields. Those advancing these questions felt an oil exchange would prevent buyers from obtaining specific grades or the uncontaminated production from certain fields. It was indicated the feeling prevailed all crude oil would be run to a common storage and mixed and that buyers would have to take the "run of mine" crude from such common storage.

This feeling was expressed by several oil men who did not care to have their names mentioned. They stated some buyers desire to purchase Oklahoma City crude oil because of the desirability of that crude for lubricating oil manufacture. They contended if Oklahoma City crude were mixed with the production of other fields, for instance the asphaltic base crudes from Healdton or other fields, lubricating oil made from the mixture would be cloudy and not as valuable from a sales standpoint. They also said certain sour crudes from West Texas were desired by certain buyers because of the high octane gasoline which could be made from these crudes.

An official of a pipe line company answered these arguments by stating present day practice permits the batching of crudes and transportation of different grades and the production of certain fields without contamination or mixture with other crudes. It is a common practice at this time for pipe line companies to batch crude oil tenders and such tenders are not mixed with other oils. Even a slight intermingling where one batch of crude would be in contact with another batch can be eliminated by slugging the line with water or another product. It was pointed out one large pipe line operating across the Mid-Continent frequently carries three different products in its line and there is no comingling. Also, under present practices, such crudes are stored in separate tanks.

Old Exchange Member Favorable

J. H. Evans, president of the Devonian Oil Co., who was a member of the oil exchange at Bradford, Pa., during the las four years of the existence of that exchange, believes an oil exchange would be an especially good thing for the oil industry at this time and at any future time. He says an exchange would stabilize prices within the petroleum industry and would be beneficial to the business as a whole. The old oil exchange at Bradford, he says, was discontinued when the Standard Oil Co., which at that time owned all the storage facilities, refused to issue certificates for crude oil stored in its tanks. Without such certificates for trading the exchange had to close its doors. Members of the exchange were not organized well enough at that time to provide their own storage.

Mr. Evans says there are adequate storage facilities in the United States to take care of all requirements of an exchange and he believes companies owning empty storage would be glad to have such storage used for purposes of the exchange as such use would bring in additional revenue. Such storage might be located anywhere in the United States, according to Mr. Evans, and crude oil in such storage could be traded on the exchange and transported from such storage to points designated by buyers.

Results of Engine Tests Using Motor Oils Manufactured by Solvent and Ordinary Methods

By SIDNEY BORN* and EARL HARPER
University of Tulsa

The performance and life of an automobile engine is largely dependent on its lubrication. The performance and characteristics of motor oil have been the subject of considerable research, both by the automotive and petroleum industry. However, attempts to establish a relationship between physical tests and engine performance have led to serious differences of opinion. This report will review some of the data that is now available and will present the results of experimental work carried out in our laboratories.

In a recent article by R. E. Wilson and P. C. Kieth, Jr.,[1] they point out that the four most important properties of motor oils are as follows:

1. Low carbon-forming tendencies.
2. Low pourpoint.
3. High viscosity-index.
4. Resistance to oxidation.

They also point out that if any attempt is made to evaluate the relative practical importance of the four above mentioned properties, serious disagreement is encountered.

They state: "This is due partly to the fact that the relative importance of the different properties varies with the season and with the engine, but probably more to the fact that refiners who make their motor oils from Coastal and California crudes have long emphasized the properties of low pourpoint and low carbon-forming tendencies in which their product has always excelled, whereas Pennsylvania refiners have emphasized low consumption, easy starting and stability in service, which we now know are largely determined by the second two properties of viscosity-index and resistance to oxidation. Refiners of Mid-Continent crude have tended to emphasize balanced quality, since their oils have been reasonably good in all four respects, though generally not up to the maximum in any single property."

Solvent Refining

The use of solvent refining methods gives the refiner of low grade naphthene and asphalt base crudes an opportunity to produce materials that will compete with motor oils such as have been produced in the Mid-Continent and Pennsylvania fields. It should be pointed out, however, that in most cases the use of solvents alone is not sufficient to produce motor oils of good stability, resistance to oxidation, and good service performance, without the use of some finishing treatment such as the use of sulphuric acid, and or fuller's earth.

The relationship of pour test to service requirements of oils was the subject of a paper presented by J. L. McCloud[2] of the Ford Motor Co. at the March 8, 1933, meeting of the New York section of the A.S.T.M. He gives an interesting summary of work which has been done in this field. The pour test of an oil is closely related to the ease of starting, especially at low temperatures. While other physical properties, such as viscosity-index, are also important and have an influence on starting characteristics, all other factors being equal, the pour test must be considered as one of the determining factors.

The viscosity of automobile crankcase oils as related to service requirements has been the subject of a paper[3] by E. W. Upham, chief metallurgist of the Chrysler Corp. He states that: "In considering the importance of viscosity in automobile engine lubrication, we have three basic requirements:

"1. Viscosity limitations must be such as to insure starting of the engine in cold weather.

"2. Viscosity limitations must be such as to prevent excessive oil consumption.

"3. Viscosity limitations must be such as to secure fluid film lubrication."

W. A. Gruse,[3] in a paper entitled "Carbon Deposits in Gasoline Engines," has made a comprehensive study of this subject and states as follows: "The conclusions possible from this discussion are probably not as definite as might be desired. It is indicated that if an engine without an air-cleaner runs cool on a rich air-fuel mixture with a high oil consumption, the oil being one of high boiling point and high carbon residue value, the engine will very probably encounter a great deal of trouble traceable to carbon deposits. The opposite conditions, dust-free air, a hot-running engine with a lean air-fuel mixture, and low consumption of a volatile oil of low carbon residue value, will very probably induce freedom from excessive deposits. Obviously, the cars on the road present all the permutations of all the shades of interval of all these conditions. As regards the lubricating oil itself, this study suggests the desirability of hastening the day when the average motor can use, with tolerably low consumption, oils of much lower viscosity than the present S.A.E. Nos. 40 and 50 grades, and preferably oils of volatile type. These less viscous oils are more plentiful, are cheaper, and are easier to refine to very high quality. Thus with highly refined products, volatile in the combustion chamber, a greater consumption (assuring adequate upper cylinder lubrication) can be tolerated without fear of the usual carbon trouble."

Changing Oil

M. A. Dietrich,[3] in a study of "Service Changes in Crankcase Lubricating Oils," gives a synopsis of which we quote partly: "Used crankcase oils generally show a marked decrease in viscosity, flash and firepoints, and pourpoint because of dilution. A decided increase is noted in the carbon residue and ease of emulsification with water. The extent of change which these characteristics undergo bears no relation to the original characteristics of the oil. The presence of dilution appears to reduce the slope of the viscosity-temperature curves for those oils whose viscosity-temperature curves are steep."

Since Dean and Davis[3] suggested the term viscosity-index, to indicate the relative viscosity at 210° and 100° F., a great deal of work has been done to establish some relationship between the viscosity-index, and those factors that determine the usability of an oil. In 1929 some work was done by the Air Corps Material Division, to determine the relationship between the usual laboratory tests for motor oils, and the usability of the oils at low temperatures. Tests were selected which were particularly suited for evaluating these factors for airplane motors at extremely low temperatures and high altitudes. It was concluded from these tests that an oil of high viscosity-index and low pour test was a satisfactory cold weather oil.

Lederer and Zublin[4] have compared Mid-Continent paraffin base oils with Eastern oils of high viscosity-index. They reported that: "All in all, one may state that as far as pumpability is concerned, a zero pourpoint Mid-Continent oil provides a greater factor of safety at 0° F. or below than a 10° or 15° pour test higher viscosity-index Eastern oil does, in spite of the fact that Eastern oil flows in larger quantities as long as it does flow." They also concluded that, "the viscosity at the temperature of starting is not the only factor determining the resistance to starting."

Ring Sticking Tests

Ring sticking tests indicated that Mid-Continent oils are equal to if not superior to high viscosity-index Eastern oils. Lederer and Zublin also state that, "Dependable test data indicates that there are strong probabilities that the oils made from Mid-Continent crude have better resistance and longer lasting qualities than other paraffin oils." They also quote comparative consumption tests carried out in a Wright J-5 engine to substantiate the lower oil consumption of Mid-Continent over high viscosity-index oil from Pennsylvania crude.

In view of the highly controversial situation that is evident in the above discussion, and because of the growing interest in solvent refined lubricating oils, it appears that these new-type oils should be compared with oils that were produced by the ordinary methods. A thorough investigation and research program was deemed necessary.

Oils Used in Tests

The following oils were examined:

Oil No. 1.—Manufactured from Mid-Continent crude oil by blending bright stock and neutral oil to produce an oil in the S.A.E. 20 range of viscosity. Both the bright stock and neutral oil were finished by the use of sulphuric acid and contact clay.

Oil No. 2.—From the same manufacturer and finished as oil No. 1, except that the viscosity was in the S.A.E. 30 range.

Oil No. 3.—Similar to oils No. 1 and 2, except in the S.A.E. 40 range of viscosity.

Oil No. 4.—A solvent treated oil from an asphalt base crude but finished with a light acid treat and clay contact, as well as solvent extraction.

Oil No. 5.—A solvent extracted oil made from Mid-Continent crude. The manufacturer did not state whether it was finished with a subsequent acid and clay treatment.

Oil No. 6.—A solvent treated oil from Mid-Continent crude oil, but no details were given regarding subsequent treatment.

Oil No. 7.—A Pennsylvania oil manufactured in the usual manner.

Oil No. 8.—A Mid-Continent oil manufactured from selected crude oil. The usual methods of acid treating and clay contact were used in its manufacture.

Oil No. 9.—A Mid-Continent oil from average Mid-Continent crude oil. During manufacture it was treated with acid and percolated through fuller's earth.

Eight of these are being marketed, but Oil No. 6 was not being marketed at the time the tests were started. The physical properties of the oils before and after they were used in the engine are given in Table 1. Additional tests are given in Table 2 and the amount of carbon formation is also shown in Table 2.

Two engine tests of Oils No. 7 and No. 8 were conducted. The first runs on these oils were discontinued at 30 hours because the engine was obviously not functioning properly. The repeat-runs were conducted for the fully 40 hours and are more dependable than the 30-hour runs.

Let us point out that many solvent

New Plymouth motor and dynamometer used in lubricating oil tests

*Director of Petroleum Research.

TABLE 1—PROPERTIES OF THE OILS BEFORE AND AFTER RUNS

Oil Number	1		2		3		4		5		6		8		7		7*		8*		9	
	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After
Gravity	26.5	25.1	25.3	23.8	24.8	23.9	25 7	25.2	28.7	27.2	30.1	28.8	24.3	22.9	27 6	26.2	27.6	26.4	24.3	22.7	24.1	23.8
Flash	435	345	445	355	460	365	480	335	500	335	455	430	445	340	455	375	455	445	445	420	450	420
Fire	510	485	510	510	530	520	565	560	575	570	515	515	515	515	520	510	520	520	515	510	505	495
Viscosity at 210° F.	54 5	63	64	77	84	87	74	81	80	80	69	74	71	82	73	84	73	83	71	88	76	87
Viscosity at 100° F.	368	527	629	853	925	1,033	856	927	789	812	572	643	794	1,014	673	866	674	849	793	1,148	885	1,143
Con. carbon	.15	1.67	.54	2.046	.752	2 244	.072	.986	.2	.954	.128	.572	.382	1.884	.946	2.026	.946	1.90	.382	2.69	1.058	2.986
Precipitation number	0	.6	0	.5	0	.4	0	.25	0	1	0	.1	0	.5	0	.2	0	.3	0	.55	0	.3
Pour test	0	10	....	....	15	15	0	....	10	10	0	0	5	10	10	10	10	10	5	10	10	10
Color	5½	dark	4½	dark	5—	dark	2½	dark	3	dark	5	dark	4½	dark	6	dark	6	dark	4½	dark	5	dark
Oil consumed (c.c.)	...	2,415	....	2,245	....	2,050	....	2,385	....	2,065	....	2,460	....	2,600	...	2,630	....	2,475	....	2,535	....	2,155
Carbon in motor (grams)	...	6.66	....	6 54	....	6.03	..	5.58	....	5.27	..	9.99	....	6.39	....	8.28	....	9.81	....	7.10	....	8.56
Viscosity index	84.5	89	70	84 5	93.5	85	73	86.5	100+	97.5	100+	100+	72	79	98	100	98	99.5	72	81	77	79

*Duplicate tests.

TABLE 2—COMPARISON OF MOTOR OILS USED IN ENGINE TESTS

							30 hours				
Oil Number	1	2	3	4	5	6	8	7	7*	8*	9
Amount of oil consumed (c.c.)	2,415	2,245	2,050	2,385	2,065	2,460	2,600	2,630	2,475	2,535	2,155
Per cent consumed	49.3	45.9	41.0	47.8	41.4	49.3	52.0	52.6	49.5	50.7	43.0
Carbon in motor (grams)	6 66	6.54	6.03	5.58	5.27	9.99	6 39	8 28	9.81	7.10	8.56
Conradson carbon: Before	.15	.542	.752	.075	.2	.128	.382	.946	.946	.382	1.058
After	1.67	2.046	2.244	.986	.954	.572	1.884	2.026	1 900	2.690	2.986
Per cent increase	1,013.3	277.4	198.5	1,216.0	377.0	346.89	393 19	114.1	100.8	604.1	181.8
Precipitation numbers:											
Original oil	0	0	0	0	0	0	0	0	0	0	0
Used oil	.6	.5	.4	.25	.1	.1	.5	.2	.2	.55	.3

*Duplicate tests.

extraction methods are being used. The three solvent oils that were examined in these tests were manufactured by three different solvent extraction processes. They should not necessarily be similar to each other in their properties or performance because of the differences in the solvent processes that were used. We believe that a larger variation among solvent extraction oils is possible than among Mid-Continent oils or Pennsylvania oils. The results of the engine tests substantiate this belief.

The pourpoints of all the oils were lower than 15° F. and are of little significance in these engine tests because the engine was housed in the engineering building and was always at temperatures exceeding 40° F.

Test Procedure

A Plymouth six-cylinder automobile engine was used in all of the tests. The engine was directly connected to an electric dynamometer, by which the engine performance could be accurately measured and regulated. A fuel tank by which the gasoline consumption could be accurately measured was installed. The engine was carefully adjusted by a skilled mechanic and every effort was made to see that the engine conditions were the same during each test run. In this manner the only variable in the test was the oil that was used in the crankcase, and thus any differences in the performance of the engine could be attributed to the oil.

Details concerning the equipment are as follows:

The tests were carried out in a Plymouth 1934 six-cylinder, L-head engine.

The power output of the engine was measured by a Sprague electric dynamometer, 75 horsepower, 1,650-4,000 r.p.m., equipped with a Weston tachometer, dynamometer scales, control panel, and resistance grid.

The fuel was weighed with a beam scale sensitive to .01 pound. A stop watch was used for measuring the elapsed time. The cooling water for the motor was circulated through a cooling tank, equipped with valves and fresh water inlet, to maintain a constant temperature. Temperatures were measured with accurate mercury thermometers. Compression pressures were checked with an accurate gauge (Ethyl Gasoline Corp. type). The cooling system of the engine is equipped with a special by-pass thermostat. The same gasoline was used in all of the tests.

The engine was completely examined after each test. The conditions of the pistons, cylinders, valves and other moving parts of the engine were noted. Micrometer measurements of the crankshaft at each bearing, of the top and bottom of each piston, and at top center and bottom of each cylinder were made at the end of each run. No appreciable wear on any of these parts was detected during the course of the tests. Refer to individual log sheets for these measurements.

The runs were conducted for 40 hours each at a speed of 2,000 r.p.m. This corresponds to an automobile speed of 40.523 miles per hour with a Plymouth Model 34 car. The equivalent mileage in what might be called the "break-down" test of the motor oil amounted to about 1,621 miles. In addition to this test, full-load tests and friction tests were conducted, so that the total mileage during the warming-up periods and the several tests was equivalent to about 1,700 miles.

Full-Load Tests

The full-load tests and the friction tests were taken after the engine had already operated for 25 hours in the "break-down" test. The full-load tests were conducted at speeds of 1,500, 2,000, 2,500 and 3,000 r.p.m. Full load was applied and the horsepower that was developed and the fuel consumption was accurately determined for each speed.

TABLE 3—COMPARISON OF ENGINE TESTS SHOWING HORSEPOWER AT FULL LOAD

Oil number....	1	2	3	4	5	6	7	7*	8	8*	9
1,500 r.p.m.	35 0	36 30	36.10	36.45	35.15	35.85	35.70	35.55	36.40	35.25	35 20
2,000 r.p.m.	46.0	45.25	45.50	45.30	44.35	45.27	45.00	45 50	45.50	45.25	44.90
2,500 r.p.m.	54.5	54.95	54.85	54.95	53.20	54 93	54 80	55.80	55.70	55.75	54 50
3,000 r.p.m.	59.4	60.45	60.40	60.93	59.70	61.36	62.00	62.75	62.40	62.80	62.30
Fuel Used in Pounds per B.H.P. per Hour											
1,500 r.p.m.	.60	.587	.602	.587	.636	.614	.632	.601	.596	.610	.627
2,000 r.p.m.	.65	.599	.590	.588	.613	.636	.654	.609	.626	.615	.616
2,500 r.p.m.	.77	.578	.602	.612	.599	.620	.655	.637	.637	.628	.640
3,000 r.p.m.	.71	.588	.667	.565	.609	.673	.668	.672	.687	.646	.646
Average	.708	.588	.615	.588	.614	.636	.652	.629	.635	.629	.632

*Duplicate tests.

TABLE 4—RESULTS OF DYNAMOMETER TESTS EXPRESSED AS FRICTIONAL HORSEPOWER

Oil number....	1	2	3	4	5	6	7	7*	8	8*	9
500 r.p.m.	1.5	1.32	1.26	1.30	1.33	1 24	1.20	1 32	1.31	1.38	1.31
1,000 r.p.m.	3.75	3.75	3.60	3.97	4.00	3.25	3.62	3.90	3.90	3.78	3 76
1,500 r.p.m.	6.50	7 25	6 77	7.72	7.75	6.56	7.02	7 35	7.50	7.33	7.16
1,700 r.p.m.	....	.....	.....	10.10	.....	.....	.....	.....	.....	.....	.....
1,725 r.p.m.	....	.. ..	.....	.....	9.96	.....	.. ..	.. ..	.....	.....	.....
1,750 r.p.m.	....	.....	.....	.....	.....	.....	.....	9.35	.....	.....	.....
1,800 r.p.m.	....	.....	.....	9 90	10.35	.....	.....	10.00	.. ..	10.05	10.24
1,825 r.p.m.	....	10.08	9.15	.....	.....	.....	.....	.....	.....	.....	.....
1,850 r.p.m.	....	10 28	.....	.....	.....	9.29	.. ..	10 70	.....	.....	.....
1,875 r.p.m.	....	.....	10.30	.....	.....	.....	10.05	.....	.....	10.35	10.92
2,000 r.p.m.	10.6	.. ..	.. ..	.....	.....	9.45	.....	.. ..	.....	.....	...

*Duplicate tests.

The friction tests were conducted immediately after other tests, so that the engine would still be hot. The tests were conducted at several speeds as indicated in Table 4. This test indicates the friction that must be overcome by the engine in order to move itself. The power required to turn the engine was measured by means of the dynamometer.

Samples of the oil were withdrawn during the "break-down" test. These samples were tested for the precipitation number, and the Conradson carbon value. The results of these tests are shown in the individual run reports that are attached herewith. The amount of oil that was removed as samples was deducted from the original amount of oil that was used in the test. In this manner the withdrawal of samples had little effect on the amount of oil that was consumed.

Test Results

The performance of the engine with the different oils is summarized in Tables 3 and 4; and also in the individual dynamometer tests that are attached at the end of the report. The changes in the physical properties of the oils during the tests are indicated in Tables 1 and 2.

The suitability of an oil as a lubricant for an automotive engine can be judged in four respects:

1. Does it protect and preserve the moving surfaces by the formation of an oil film? Obviously this is the most important requirement of a lubricating oil. In these tests all of the oils were satisfactory in this respect; the walls of the cylinder gave no evidence of abrasive wear.

2. Is the oil chemically stable? Carbon deposits, a loss in viscosity, or the formation of tarry sludge-like materials, may be indications of instability.

3. How much oil is consumed by the engine? The oil consumption appears to be related to the viscosity and to the flashpoint, but only in a general way.

4. Is the oil a good lubricant? The ability of the oil to serve as a lubricant may be measured by the fuel consumption, the friction tests and by the power output of an engine.

The data were analyzed with respect to these four characteristics of a good oil. With regard to the first of these, all of the oils were satisfactory. All of the oils served to protect and preserve the engine mechanism from wear.

Chemical Stability

With regard to chemical stability, some of the oils were better than others. However, none of the properties of the unused oil were directly related to the stability of the oil in service. Thus more carbon was deposited in the motor by Oil No. 6 than by any other oil, and yet this oil had nearly the lowest Conradson carbon value (see tabulation). When the amount of carbon from each oil was plotted against the Conradson carbon value no relation between the two variables was apparent. As a further example, note the following:

COMPARISON OF CARBON CONTENT RESULTS

Oil—	Conradson carbon	Carbon in engine (grams)
No. 5	.2	5.27
No. 6	.128	9.99
No. 9	1.058	8.56

Thus, the two oils that deposited the least and the most carbon in the engine had about the same Conradson carbon value.

A comparison of the precipitation number and the carbon in the engine indicated that the precipitation number is not a measure of the chemical stability of the oil.

COMPARISON OF PRECIPITATION TEST RESULTS AND CARBON FORMED

Oil—	Prec. No.	Carbon in engine (grams)
No. 6	0.1	9.99
No. 5	0.1	5.27
No. 1	0.6	6.66

Thus, Oils No. 6 and No. 5 had the same precipitation number, but one oil deposited more carbon than any other oil, and the other less than any other oil. Furthermore, the oil with the highest precipitation number did not deposit much carbon.

It is interesting to note that the oil which deposited the most carbon was a solvent refined oil and that the oil which deposited the least carbon was also a solvent oil. The only consistency between carbon deposits and chemical properties that is apparent is for Oils Nos. 1, 2 and 3. This is to be expected because these oils were all made by the same manufacturer and from the same crude oil.

The oil consumption was hardly more consistent. Usually the viscosity and the flashpoint are thought to be related to the oil consumption. In these engine tests these relations were not clearly apparent although a general tendency was evident. In general, the low flashpoint and low viscosity oils were consumed more rapidly. Again, this is particularly apparent for Oils Nos. 1, 2 and 3 which were prepared from the same crude oil.

The oil consumption is related to the amount of carbon that is deposited, but this relation is of little significance because it can only be determined by "running" the oil in an engine.

Lubricating Value

The lubricating value of the oils was gauged by the fuel consumption and the friction tests. The fuel consumption and the friction horsepower were plotted against viscosity and against carbon residue but no connection between these variables was apparent. The following comparison shows the lack of consistency:

Oil No.	Ave. fuel consumption	Viscosity at 210° F.	Friction h.p. at 1,500 r.p.m.
1	.708	54.5	6.5
6	.636	69	6.56
9	.632	76	7.16
8	.629	71	7.33
7	.629	73	7.35
3	.615	84	6.77
5	.614	80	7.75
4	.588	74	7.72
2	.588	64	7.25

(Continued on Page 34)

Modern Flood Methods Promise Large Reserve in Eastern Field

By ROBERT C. CONINE

KANESHOLM, Pa., Oct. 29.—Estimated by the developers to be capable of yielding 1,000 bbls. of Pennsylvania grade crude oil a day for from 40 to 50 years, the 5,000-acre block of Olean Petroleum Co., owned by Wilson K. Page, about 6 miles northeast of Kane, McKean County, is the site of one of the most modern operations in the oil region, and one about which probably the least is known. Coontown, to which one is directed in locating this lease, does not appear upon any map. The paying oil sand cannot be positively identified, nor do more than a dozen producers throughout the rest of the western Pennsylvania oil region appear to have heard of the development initiated in 1929, and now promising to figure importantly in the petroleum statistics of the northern fields.

In the foreground is the Bovaird water treating tower, and behind is the power plant where electricity to operate the lease is produced

Water Below Bradford

From Clarendon southward and east through Tiona, Saybrook and Sheffield, then east to Kane and tending northward to Mount Jewett, the change from air and gas repressuring to waterflooding has proceeded covering a flattened semicircle marked by wide breaks unproductive of oil or gas, or producing gas only in Warren and McKean Counties.

Interested in these waterflooding operations are such companies as Petroleum Reclamation Co., South Penn Oil Co., Crew-Levick Oil Co., Kane Estate (now core drilling), H. J. Walter Oil Co. (also initiating development), Olean Development Co. and individuals, C. W. Elder, A. S. Perry, Peter Reclan and F. Francis. Petroleum Reclamation and Crew-Levick had for several years operated air repressuring installations on their extensive leases in the Tiona or Clarendon sand, and are probably the most active operators west of Kane today in waterflooding. The producing units are classified as delayed five-spots. Peak volume production per day for the oil wells ranges from 20 bbls. to more than 100 bbls., depending upon the tightness of the producing sand, saturation and intensity of unit development, i.e., the volume of water introduced into the oil sand before venting or drilling the oil producing well. At Saybrook, for instance, the sand (Tiona) is from 11 to 25 feet in thickness, and each of the four water wells in a five-spot takes 1 bbl. of water per 24 hours for each foot of sand thickness with the pressure at 800 pounds per square inch, from the compressor, plus the weight of the 1,030-40-foot column of water in the hole. Data on the results obtained by Petroleum Reclamation and Crew-Levick will not be available until engineers are convinced that all possible errors have been eliminated in the extremely difficult problem in geology presented by that area.

Identifying the Sand

The sand from which oil is produced on the Olean Petroleum Co. lease near Kanesholm is generally identified, for convenience it is stated, with the Bradford Third sand. It is pointed out that the notorious discontinuity of the lower Chemung sands has resulted in naming as Bradford sand numerous formations which could be related in superficial appearance only, and which chemical analysis has revealed to be entirely different from the great water flood sand of northern McKean County. In the area from Clarendon to Mount Jewett, discussed above, there is a wide selection of oil and gas producing formations: In Warren County, the Glade, Clarendon and Gartland, and in McKean County, the Chipmunk, Second Bradford, Third Bradford, Fourth Bradford or Windfall, the Lewis Run, Fifth Bradford, also designated as the Kane of Bradford, the Kane, and the Sixth Bradford or Haskell.

The Bradford Third sand in the Bradford Field is reached at 1,700 to 1,800 feet, generally, while the "Bradford Third" near Kanesholm is reached at 2,100 to 2,200 feet. The natural gas used to fuel engines in the Olean company's power plant is taken from what is known locally as the Fifth sand, which is devoid of oil. In the northwestern portion of the huge tract, now under intensive development, the paying sand, according to core data, is uniformly good, and in several places shows an oil content as high as 33,000 bbls. to the acre. Sand oil content data is subject to dispute, naturally, because of the multiplicity of methods of interpreting core showings, and even in the methods of obtaining and caring for the cores. In this connection it may be said that engineers are agreed that oil saturation information can be obtained from cores which is thoroughly reliable, and expect shortly that a standardized procedure will be worked out.

The Kanesholm sand is believed by some authorities to be somewhat tighter than the recognized Bradford Third sand. Between Kanesholm and Bradford there is a wide area where there has never been any commercial production of oil. In this intervening gap the paying sand is either entirely absent, or pinched out to bare sheets. Productive gas sands cover a considerably wider area throughout the district south of Bradford discussed here. As geologists view the matter of structure around Kanesholm today, there is little expectation that correlation will be possible with the sands of the upper fields. For practical purposes, however, it is sufficient to know that in the acreage to be discussed below, the paying sand ranges in thickness from 10 to 40 feet and shows a good saturation of oil. Cores taken on an adjoining tract, operated by H. J. Walter Oil Co. of Bradford, provide supporting data.

Plan of Development

The holdings of Olean Petroleum Co. at Coontown, 2 miles northeast of Kanesholm, cover 5,300 acres. Of this block it has been determined that at least 4,000 acres may be included in water flood development in a program extended over a period of 40 years for the production of 1,000 bbls. of oil a day. Before 1929 this acreage was producing by air repressuring, and output was declining rapidly because of unfavorable conditions brought about by air contact with the sand. Mr. Page took the tract over and changed to water drive oil recovery.

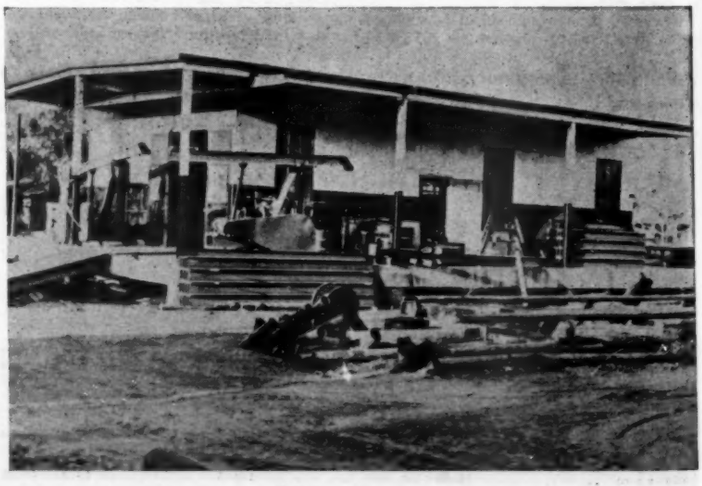
Electricity for this pumping jack costs well under a cent per barrel of fluid taken from the well

The water flood was started on the northeastern borders of the northwestern portion of the lease. Extent of development today is shown in the accompanying diagram. Oil flood wells are indicated by triangles, water intake wells by circles, old wells by lazy T's, and drilling wells by H's. The section showing intensive development covers 150 acres. In this section there are 123 water flood wells, 80 oil flood wells, 8 drilling wells and 12 old wells which conform with the plan of development. In all there are 47 old wells in the northwest section of the entire lease, which, while unsuited for conversion to water intake wells because of lack of underground data required for setting packers, etc., will in many cases be practical to pump. Outside of this 150-acre section there are also four strings of tools testing for an extension of the development.

Well Spacing

Spacing between water wells is 300 feet, making the area of each water drive unit 90,000 square feet, with an oil flood well located at the center of each square. The intake wells use a little more than

(Continued on Page 34)



View of shop where all of the equipment, with the exception of electric motors, is manufactured right on the lease

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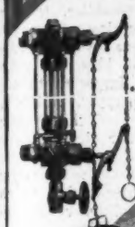
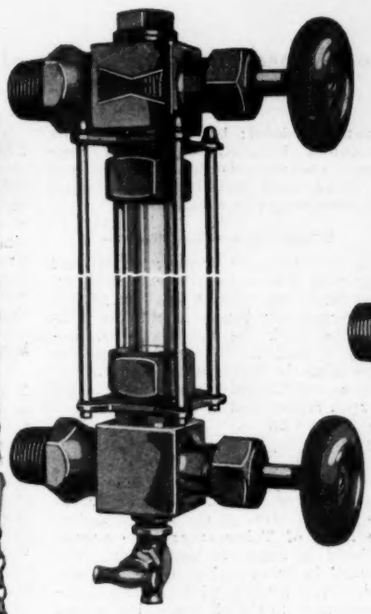
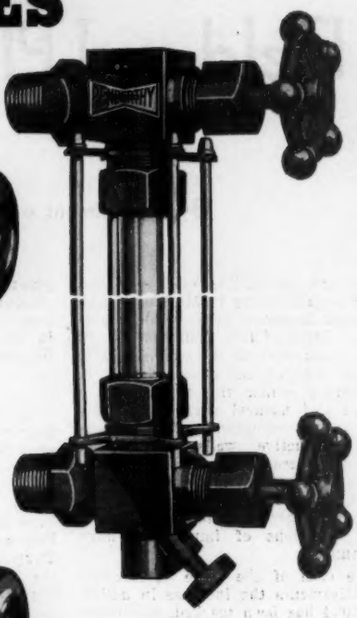

"Navy Type" Liquid Level Gage

"Safeguard" Automatic Liquid Level Gage

"All-Iron" Automatic Liquid Level Gage

"NAVY TYPE"
350 LBS. WORKING PRESSURE
500° F.


"SAFEGUARD"
300 LBS. WORKING PRESSURE
500° F.


"ALL IRON"
500 LBS. WORKING PRESSURE
750° F.

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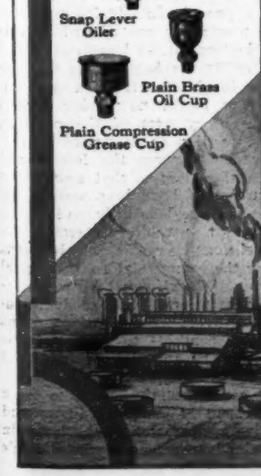

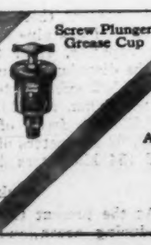
Screw Plunger Grease Cup

Spring Compression Grease Cup

Automatic Electric Sump Pump

Automatic Cellar Drainer (Water or Steam Operated)

Duplex Air Cock

Mexican Oil Companies' Activities in Field and Plants Are Increasing

By Department of National Economy, Republic of Mexico*

There are perceptible evidences that the petroleum industry in Mexico is passing through a period of slow but stable recovery. Signs of this commenced to be noticed as far back as the second half of 1932, and they became more manifest in 1933, during which the production of crude oil and natural gas, refinery activities and consumption, and the number of productive wells brought in, showed an increase. Generally speaking there was an augmented development in all lines, and this development has become increasingly evident; in addition, further operations of importance have been planned.

In the case of the more outstanding oil establishments the increase in activities in 1934 has been marked, this being more particularly true in the northern and northwestern parts of the Panuco and Tamesi Valleys, on the Tuxpan and Panantla territories and on the isthmus of Tehuantepec, with a corresponding increase in the number of applications for drilling permits and in the number of installations erected—pump stations, heating plants, pipe lines, tanks, new refinery units, etc. Exploration activities, too, have increased, and in general there is a greater interest shown in petroleum development, encouraged as it has been by the increase in the consumption (in Mexico it will apparently be more than 20 per cent above what it was in 1933).

The violent tornadoes which raged in the month of September, 1933, and which affected an extensive area in the northeastern section of Mexico, were a grave calamity to the oil industry. The first of these storms, of lesser intensity than the one that followed, hit only the fields in the northeast border region; the next one, however, on September 24, swept a much greater area of the northeast, and constituted nothing less than a catastrophe; the unprecedented cyclone wreaked destruction in the northern part of the State of Vera Cruz, the southern part of Tamaulipas and the northeastern part of San Luis Potosi, in which states it uprooted trees, carried away roofs and destroyed houses and telegraph and telephone lines. The worst feature, however, was the prevalence of torrential rains, amounting to veritable waterspouts; the already voluminous streams throughout the affected region overflowed their banks, washing out fields, carrying away livestock, destroying homes and flooding enormous areas, especially in the valleys of the Panuco and Tamesi. In the more important centers such as the cities of Panuco and Tampico, the water rose considerably, so that the docks and a large section of the towns themselves were completely inundated, many lives lost and all properties badly damaged. As the Panuco and Tamesi Valleys form one of the most important divisions of Mexico, the significance of such a disaster for industry can readily be conceived; large areas of the oil fields were flooded, telephone communications stopped, river transportation interrupted; many stretches of pipe lines in both the Panuco and north Tuxpan regions were broken or annihilated and a number of pumping plants inundated; in fact all petroleum companies' installations sustained large losses, and their damage was such that in many cases operations were stopped for more than two weeks.

*Extract of report to Mexican Congress.

Operations and Explorations

In the northeast frontier region, and mainly in Nuevo Leon and Tamaulipas, exploratory activities have been carried on energetically, both with ordinary drillings and with the most improved geophysical methods. Of equal importance have been the operations effected in the Panuco and Tamesi River valleys, in the Tuxpan regions and in the areas south of the Tuxpan River.

Drillings with a view to development operations have been made in the northeast border section, the Panuco and Tamesi River valleys, in Ozuluama, in the Tuxpan area, on the isthmus and in the State of Tabasco; and the success achieved in some of these drillings has resulted in an extension of certain fields under investigation, with consequent encouragement to the oil companies to plan further operations.

Producing Wells

In the period from August 1, 1933, to July 31, 1934, 46 productive wells were brought in, on Mexican oil fields, with an initial capacity, all together, of 3,480 cubic meters a day (21,889 bbls.). In 1933 the total number of wells brought in was 53, with a production capacity of 7,473 cubic meters (47,006 bbls) daily. Up to July 31 of this year, there were 1,699 productive wells in the petroliferous fields of Mexico, of which 1,049 were still being operated in May.

Production

Mexican oil production in 1933 was considerably in excess not only of that of 1932 but also of that of 1931. In 1933, 5,405,537 cubic meters (34,000,830 bbls.) were taken out, with a market value of $90,636,095 in Mexican money, as compared with 5,215,500 cubic meters (32,805,496 bbls.), valued at $75,687,178 in 1932, an increase achieved in spite of the veritable catastrophe which in September was inflicted upon one of the most important of Mexican oil areas. Mexico continued to hold, in 1933, the seventh place which it has long retained as regards world petroleum production.

The production of natural gas in 1933 in Mexican fields is estimated to have been 311,300,000 cubic meters (11,000,000,000 feet).

In the first six months of the present year the total of the production of Mexican fields was 2,862,612 cubic meters (18,005,829 bbls.), with a market value of $58,121,233 national currency, figures which are above those for the corresponding period of 1933; all signs would appear to indicate that the total yield for 1934 will exceed that of last year and will accordingly be greater than that of 1931 and 1932.

Since Mexico started commercial exploitation in 1901, it has produced, up to June 30 last, 273,005,062 cubic meters (1,717,267,837 bbls.), with a market value of $3,204,346,152.

Our oil exports in 1933 amounted to 3,501,768 cubic meters (22,026,121 bbls.), this is only 89,351 cubic meters (562,016 bbls.) below the 1932 figure, owing to the fact that, as has been explained on a number of occasions, exports to the United States were forced up during the first half of the year 1932 in anticipation of the creation of the tariff rates which made it actually out of the question to ship refined products into that country and which made it difficult to bring in crudes and fuel oils.

During the first six months of 1934, Mexico exported in all 2,021,201 cubic meters (12,713,356 bbls.) of crude oil and derivatives, a larger exportation than that for the same period of 1933. As with production, it seems a certainty that this year's exports will exceed those of 1933, in view of the appreciable increase in the consumption and demand in the most important countries of the world (amounting in some cases to as much as 20 per cent over what they were in the previous year).

Refining

The refining plants established in the republic have continued enlarging and improving their installations. This is the case particularly in the Tampico territory, where considerable investments have been made in this connection.

In 1933 the volume of products subjected to refining processes was 4,787,733 cubic meters (30,114,840 bbls.); there were 4,671,673 cubic meters (29,384,823 bbls.) of miscellaneous products obatined therefrom, such as fuel oil, 53.2 per cent; gas oil, 8.7 per cent; unrefined gasoline, 6.7 per cent; refined gasoline, 16.1 per cent; unrefined kerosene, 2.3 per cent; refined kerosene, 2.7 per cent; lubricants, 1.7 per cent, the balance being paraffin, asphalts, flux, coke and other items.

In the first six months of the present year there were 2,952,113 cubic meters (18,568,791 bbls.) subjected to refinery treatment, and the production was 2,885,098 cubic meters (18,147,267 bbls.). The increase in these activities has been such that the first half of 1934 has already shown an advance of somewhat more than 30 per cent.

There were obtained in 1933, from the natural gas produced by the wells, at the plants existing for that purpose in various fields, a total of 36,519 cubic meters (229,705 bbls.) of natural gasoline; the production at the same plants for the first six months of 1934 amounted to 19,865 cubic meters (124,951 bbls.).

Transportation

At present there are 5,010 kilometers of oil and gas pipe lines, and their carrying capacity, from the producing areas to the distributing and loading terminals, is 313,592 cubic meters (1,972,494 bbls.) of petroleum, and 1,090,550 cubic meters (38,513,864 feet) of gas per day. In 1933, 92 kilometers of pipe line were laid, and 134 kilometers dismantled.

Tankage

At the present time there exist in the producing areas and at terminals, distributing centers and refineries, 3,003 tanks for the storage of crude and its derivatives, with a total storage capacity of 12,340,250 cubic meters (77,620,172 bbls.); of these, 3,063 are of steel, with a capacity of 8,575,408 cubic meters (53,939,316 bbls.).

In 1933, 103 tanks were erected, with a storage capacity of 54,212 cubic meters (340,993 bbls.); 43 were dismantled (capacity 124,268 cubic meters, or 781,645 bbls.).

Consumption

Of the 1933 production of crude petroleum and derived products, 1,944,331 cubic meters (12,229,842 bbls.) went to domestic consumption; of this quantity, 385,859 cubic meters (2,427,053 bbls.) were used by the oil companies in their miscellaneous exploitation activities; 774,089 cubic meters (4,869,020 bbls.) were consumed by the various railway systems, and 784,383 cubic meters (4,933,769 bbls.) by our industrial establishments and by automobiles, tractors, transportation and lighting enterprises, etc. Furthermore there were 177,307 cubic meters (1,115,261 bbls.) of petroleum and its products imported to supplement the domestic supply, mainly in the northwestern region of the country, which is remote from our oil centers, so that the total Mexican consumption for 1933 amounted to 2,121,638 cubic meters (13,345,103 bbls.), corresponding to the figures for refined gasoline, of 256,695 cubic meters or 1,614,612 bbls.

In the first six months of 1934 Mexico consumed in all 1,207,012 cubic meters (7,592,105 bbls.) of petroleum and its products of domestic production. The rate of consumption has been gradually rising, and in the first six month of this year the increase was over 20 per cent, this being due to our general economic situation and to the development of highways throughout the whole country.

Capital Invested

The amount of capital invested in the petroleum industry is estimated at present at $960,000,000, Mexican money, and the lands on which oil companies are carrying on their various operations represent a value of $108,000,000.

Future Prospects

A perusal of the above data confirms us in the feeling that our country is slowly but unmistakably advancing along the path of economic recovery, and therefore strengthening its position as regards the oil industry. There is no doubt that the increased consumption, in Mexico and in the principal foreign countries, has considerably stimulated the improvement and expansion of this industry.

The increase in consumption has occasioned a progressive and persistent rise in petroleum prices, and has accordingly been one of the immediate consequences of the industrial and economic recovery observable both in Mexico and in many of the countries that are large consumers, in some of which (while it can hardly be said that the depression has altogether disappeared) its most acute phase has passed. In Mexico a factor that has powerfully contributed to this economic betterment, so beneficial to our oil industry, is the harmonious development seen in the construction and improvement of roads, now being carried forward in every part of the republic, pursuant to a plan characterized by perfect agreement between the federal and the local authorities; so that new means of communication have been opened up, giving access to regions hitherto isolated, with resultant notable betterment of traffic conditions everywhere. This means facilitating the commercial and industrial development of Mexico and hence an increased consumption of fuel products, lubricants and divers other petroleum items that are indispensable to transportation and necessary to any line of industrial activity.

Present conditions thus seem to favor the development of our oil industry and the effective co-operation of the latter in the general advancement of the nation's interests.

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Oil Monopoly in Manchukuo Protested by Britain, Holland and America

WASHINGTON, D. C., Oct. 29.—Treaty rights and the "open door" in China have been invoked by the United States, Great Britain and the Netherlands to prevent Japanese interests from monopolizing the oil business in Manchukuo.

These governments made representations to Japan on behalf of the Standard Oil Co. and the Asiatic Petroleum Co., jointly owned by British and Dutch interests, to circumvent what observers here interpreted as an attempt by Japan to compel foreign oil companies doing business in Japan to finance Japan's fuel oil reserves for military purposes. The representations were made separately by the diplomatic representatives of the three governments.

Two separate difficulties were involved. The first dealt with the Manchurian situation, caused by organization of a Manchukuo state oil monopoly. This organization, closely affiliated with Japanese oil and financial interests, proposed to take over all business of distributing oil in the former Chinese provinces wrested from China and now ruled by a Japan-supported government.

Oil companies contended this was a closing of the "open door" in China, guaranteed by treaties which Japan repeatedly has declared its intention to respect and support.

The second action dealt with the situation in Japan proper, brought about by enactment of recent Japanese laws compelling foreign oil companies doing business in Japan to maintain reserves there at all times equivalent to the total sales in Japan by the respective companies during the preceding six months.

In addition, the laws stipulated that the Japanese government could any time fix the price at which oil could be sold in Japan. They also provided that the government whenever it saw fit could sequester all oil supplies stored in Japan, paying foreign companies the market price on the day of seizure.

The oil companies protested these laws would require them to build extensive storage tanks in Japan and to finance perpetually large reserves of oil. In addition, they protested they had no security from seizure of these expensive reserves at any time.

Oil companies protested compliance with the new laws would make it financially impossible for them to operate in Japan.

Since the United States still regards Manchuria as part of China, protests should be directed to the Chinese national government, Eiji Amau, spokesman for the Japanese foreign office, suggested.

Certainly the protests should not be sent to Japan, Amau said, because Japan is just another "foreign country," like Great Britain and the United States, so far as the "independent" government of Manchukuo is concerned.

Expand Service for Barging All Refinery Products Along Ohio and Mississippi

Refiners and marketers interested in the movement of oil by water are impressed with the significance of an unusual tow which started from Pittsburgh for New Orleans at noon Thursday, October 25, 1934, under the power of the modern motorship "Peace," of the Union Barge Line.

Since the completion of the lock and dam construction on the Ohio river in 1929 made the natural channel of the Mississippi accessible for inland shippers, great fleets of modern barges and powerful towboats have been making regular trips up and down the two streams. The cheapness of waterway transportation has broadened markets for refiners along the shores of these waterways.

In addition to the fact that this is the maiden voyage of the new all-steel, twin-screw, Diesel-powered boat, three refining companies are participating in the "Modern Argosy."

By their participation, the American Oil Co., Gulf Oil Co. and the Standard Oil Co. of New Jersey endorse the safety, dependability and economy of river shipping, as they are all heavy users of inland waterway transportation.

Interior of pilot house on the 750 H.P. twin-screw, Diesel-powered, all-steel motorship "Peace" making her maiden voyage from Pittsburgh to New Orleans carrying displays of the American Oil Co., Gulf Refining Co., and Standard Oil Co. of New Jersey

Federal Tender Board Halts "Hot" Oil Flow

(Continued from Page 8)

fore taking such drastic action as cutting the price of crude. For that reason, officials here do not believe any definite action along that line will be taken for at least another week, if then.

New Buying Program

In the meantime, while laying the groundwork and getting the "hot" oil drive functioning in East Texas, an extremely precarious marketing situation has developed which includes almost the entire United States east of the Rocky Mountains. This situation demands immediate action if countless small marketers are to be saved from economic extinction.

Numerous suggestions have been advanced by members of the Planning and Coordination Committee, and by officials of the Petroleum Administration. While price-fixing has been much talked of, and proponents of this measure have urged that it be installed, there is almost no likelihood of such action being taken.

The most likely temporary panacea will be a resumption of the gasoline buying program under the auspices of the Program Committee of the Planning and Coordination Committee. A drive was started over a week ago in East Texas to obtain signatures to agreements which would enable the buying activity to be resumed, and to date approximately 97 per cent of the refiners in East Texas have signed the agreement.

The next step in this plan is to get the buying companies in agreement on the practicability of buying gasoline to stabilize the market. It is the general opinion here that the major companies which have done the buying in all of the past buying movements, will not purchase gasoline unless they are assured that the government will do its share in enforcing the provisions of the code and of the laws relating to production of crude oil. The last buying program was abandoned because of the government's inefficiency in dealing with the situation, and it is not likely such a program will be resumed unless the government stops the illegal production of oil.

Resumption of buying at this time, it has been said, would be only a very temporary move, merely designed to stabilize the marketing structure of the industry which is now involved in one of the most destructive price wars in the history of the industry.

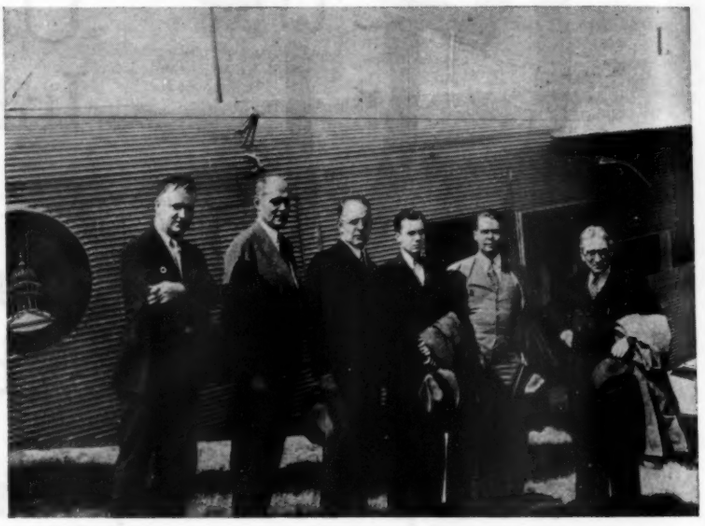
Need Permanent Plan

A meeting here today of the Program Committee is expected to clear up the doubtful aspects of the resumption of buying. All members of the committee have been asked to attend, and within the week it is expected that the program will be either resumed, or such plans discarded entirely by the Planning and Coordination Committee.

Officials here are of the opinion that if arrangements are made to purchase gasoline at a fair price from non-integrated and semi-integrated refiners a long step will have been taken to stabilize the marketing branch of the industry. The Administration can then devote more time to evolving a permanent plan to maintain the stability thus achieved, and in the end work out a more constructive plan than would be possible to put into effect on the spur of the moment.

The entire situation in the industry is apparently looking better. For the first time since the adoption of the code and a long period before the code, production is being controlled and held down to the approximate consumer demand. While this situation has not been in effect for a sufficiently long time for the industry to get the full benefit of it in all its branches, it is generally believed that if the Government continues as it now is it will benefit the entire industry.

The administration is well aware of the inequities between the price of crude oil and the refined market structure. Steps will be taken in the very near future to remedy these conditions, and in doing so, it is believed the unstable market conditions prevailing will also be settled.



Left to right: R. J. McCormick, special agent of the Department of the Interior; L. R. Glavis, director of investigations for the Department of the Interior; L. R. Martineau Jr., special assistant to the attorney general of the United States; Richard C. Heaton and Morris R. Clark, special attorneys for the Department of Justice, and Joseph A. Barrett, special assistant to the attorney general of the United States

GULF COAST MARKET

HOUSTON, Tex., Oct. 30.—The Gulf Coast refinery market is substantially firmer as result of closing down many small refineries in East Texas and tightening of hot oil situation. Very little gasoline is available at current prices except for strictly local movement. Retail price wars clearing up, however many are skeptical and some uncertainty still prevails.

Breaking of the prevailing lub price is indicated with concessions being offered from several sources. Most of larger sellers are attempting to hold quotations but are losing business with buyers claiming to be able to fill requirements at least a quarter cent under the quoted market.

Kerosene is firm. Fuel oils continue to be plentiful for intrastate movement although supply for other destinations very limited.

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has been subjected to several interpretations both by the user and manufacturer. Lack of a standard interpretation has led to confusion and possible misunderstanding by the manufacturer as to the exact treatment desired by the customer. Customers should be specific as to the material, heat-treatment and physical properties desired.

DRILL COLLARS may be furnished—

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2.—Normalized—heated from end to end in one heat and air hardened.

3.—With fully heat-treated ends, i. e., with ends quenched and drawn for approximately 2 feet.

4.—With no heat-treatment.

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four grades of Drill Collars which represent different combinations of steels, heat-treatments and physical properties, or will manufacture Drill Collars to meet customers' special requirements.

STEEL SPECIFICATIONS—SAE 1040—For Drill Collars—Grades "A", "AO" and "O" with joints larger than 4½" A. P. I. SAE 3140—For Drill Collars—Grades "A", "AO" and "O" with joints 4½" and smaller. NOTE:—Drill Collars turned with two joint sizes, one of which is 4½" A. P. I., or smaller, are made of SAE 3140. SAE 4140—For Grade "N" Drill Collars.

"OILWELL" Grade "A"—Fully heat-treated—heated the entire length in one heat and quenched, then re-heated the entire length in one heat and drawn. Hardness, strength and toughness the same as tool joints of corresponding size. Brinell hardness 270-300. Tensile strength 115,000-130,000 lbs./sq. in.

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"OILWELL" Grade "O"—No heat treatment. Brinell Hardness 160-200. Tensile strength 80,000-100,000 lbs./sq. in.

All Grades of "OILWELL" Drill Collars are manufactured in lengths up to 55 feet.

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Member, Audit Bureau of Circulations

Will It Last?

Optimistic reports from Washington and East Texas about the success of the new Federal Tender Board in shutting off the flow of "hot" gasoline from interstate transportation remain to be tested by permanent results.

Somewhat similar interruptions of the flood of "hot" oil have been recorded in the past, following a new State order or a ruling of court until "the boys" found what it meant and a way around it.

Up to this they had always been able to resume operations as soon as they had sized up the situation as they undoubtedly are now attempting to size up the present.

The expected testing of the tender board's authority through an in unction has not materialized but that is not to say it is entirely out of the question. A grievance over the rejection of a tender may easily provoke recourse to court. It has been demonstrated that the first shadow of doubt or defiance is quickly followed by wide open resumption of business at the old stand.

That is why a momentary lull in running "hot" oil or gasoline cannot be accepted too surely as the end of overproduction in East Texas. Even if it extended beyond a few days to a few weeks it would be premature to assume that the problem had been definitely solved, much as it is desired to have it solved.

The history of the field shows that the racketeers who have been making easy money in East Texas are not going to give up without an effort. The legitimate profits from legitimate operations have no attraction for them or they would have accepted the gasoline buying bargain. The "Get Rich Quick Wallingfords" never settle down contentedly to a steady job.

The busy minds which have invented all the tricks and dodges and devices which have made a joke of enforcement in East Texas are by no means played out. A spectacular three or four days shutdown is not likely to scare them.

The only way they can be convinced the law must be obeyed is by preventing them from evading it.

That is also the test which the oil industry must await rather than accepting the optimistic reports from Washington and East Texas at their face value. The important thing is not whether the flood of overproduction can be stopped but whether it is stopped to stay stopped.

This uncertainty is reflected in the gasoline market which, while strengthened, is by no means robust. Caution is still the watchword. Those who found it costly to be prematurely optimistic on other occasions are not taking any more chances. They are waiting to be shown.

Even the belated activity of the Department of Justice is subject to certain discounts. Temporary injunctions are not always confirmed into permanent injunctions. Also, as has been shown, there are the delays consequent upon appeals without, in the meantime, having any deterrent effect. The decision of the circuit court at New Orleans had no perceptible effect upon conditions in East Texas while it went on to the Supreme tribunal.

The industry sincerely hopes that the optimism at Washington will be found well founded and that East Texas is at last to be brought within bounds. But it cannot be blamed for waiting for the actual fact, especially since it has been fooled so frequently by proclamations that failed of realization.

If enforcement can be made effective the question remains, will it last?

Program Needed

The fifteenth annual meeting of the American Petroleum Institute will be held in Dallas, Texas, week after next. In view of the crucial year through which the industry has just passed and the present critical situation it may be expected that addresses at the general sessions will deal with the pressing problems of the day.

The immediate need is for action, constructive action, a definite line that can be followed to a definite conclusion. The ailments that afflict the industry are well known. There is little need for further diagnosis but instant necessity for remedial action.

It is the function of a representative organization of an industry to grapple with its problems, to focus the intelligence of the industry upon finding a solution.

Specialized discussion in departmental groups cannot get the general attention necessary to cope with a general question as it affects the whole industry.

One of the troubles of the oil industry is admittedly the multiplicity and duplication of marketing outlets. The effects extend throughout every branch of the industry. All are directly interested in its solution.

It cannot be solved by looking at it merely from a standpoint of gallonage. The industry is interested primarily, like any other business, in selling its products, not in giving them away. Volume without profit is not business; it is bankruptcy.

There is also the discussion that has been continuous during the past year between refiners and producers concerning the relative crude and products price ranges. Contradictory conclusions based upon the restricted view of only one part of the industry can only be set right by considering what is best for all in the industry, and constantly remembering that experience has shown no one branch can permanently profit at the expense of another.

Opportunity for open discussion would do much to ventilate the questions that perplex the industry and clear the way for solidifying opinion and giving the industry direction. Outside of individual conversations and the special discussions in group sessions the average oil man at the annual meetings is a spectator rather than a participant.

If this is so the responsibility rests with the members in not taking a more active interest in the Institute. In this respect they resemble the average citizen who would get better government if he devoted the time he spends in criticism to doing something about it.

The oil industry stands on the threshold of all important developments. How it will meet them can be determined in large measure by the attitude of the Institute at its meeting next week.

If the industry is to prove its capacity for self-government it must have a program, not merely an assortment of opinions that can be cited as presumptive evidence of its unfitness to be left alone.

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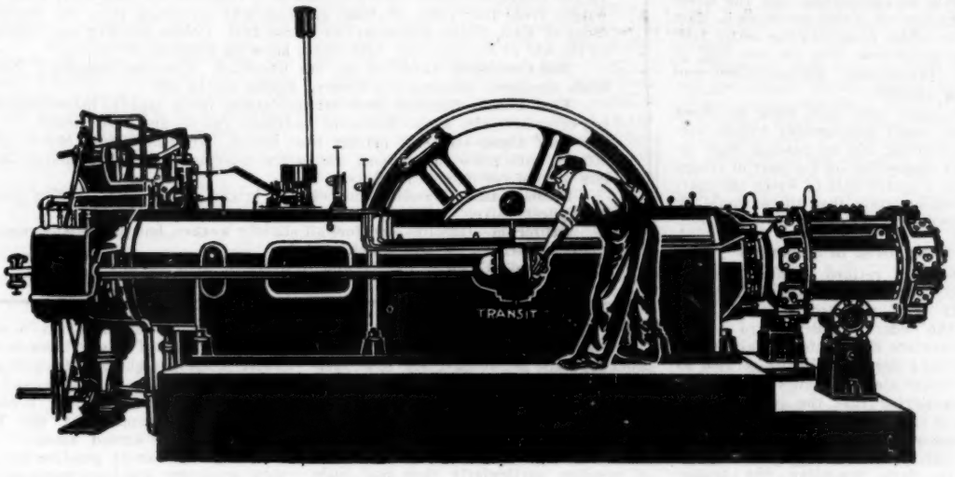

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Developments Crowding Each Other in Group 3 and Market Shows Moderately Better Tone

By T. F. SMILEY

Following a succession of striking developments in the Oklahoma (Group 3) territory the market in several petroleum products was showing a moderately improved tone this week; but a long train of unfulfilled hopes had inclined the trade to restrain its enthusiasm over the latest campaign against illegal practices in East Texas, to which campaign the better feeling was attributed. The air was full of rumors, predictions, uncertainties and sweeping claims.

Crude price cuts last week by three relatively small independent buyers created uneasiness, but as passing days revealed no disposition on the part of others to join in a course sure to wreck the market, a feeling grew that there would be no widespread price-cutting movement.

Sharp Drop in Shipments

Shipment of refined products out of East Texas underwent a sharp drop last Thursday with the beginning of hearings by the Federal Tender Board in Kilgore. Interstate shipments fell almost to the vanishing point. Railroads refused to accept interstate shipments without a tender certifying that the products had been made from lawfully produced crude.

Immense quantities of oil products were hurried out of East Texas last week in the three days preceding the tender board's sittings. Estimates place the total movement for the three days at 3,000 cars, of which 800 were said to have been shipped "in transit." More than one-third of all this material is supposed to have been gasoline. While there is known to be enough motor fuel now in storage and in transit to prevent anything faintly resembling a shortage for several weeks, it nevertheless is a fact that the technical position of the market is strengthened each day which passes without East Texas sending its accustomed stream of gasoline out to consuming points.

With East Texas toppled temporarily from its place as the chief source of gasoline and other oil products, Oklahoma refiners received an unusually large number of inquiries this week. In many instances these refiners were in no position to handle additional business. In the case of gasoline particularly they had little in storage and they were operating at just a sufficient rate to take care of the seasonally declining demand.

Serious regard was accorded a movement on the part of the Independent Refiners Association of East Texas to stem the distribution of cheap gasoline by trucks. At a meeting of refiners in Kilgore last Saturday a unanimous agreement was reached, according to J. Hardy, assistant secretary of the association, to post a tank car and truck price (including taxes) of 10 cents f.o.b. refinery, effective Monday morning. At a general meeting of East Texas refiners in Gladewater Monday night of this week it was decided to post a tank car and truck price of 11 cents, effective Wednesday morning, this supplanting the 10-cent price previously agreed upon.

A large volume of gasoline for intrastate movement has been going out regularly from East Texas in trucks. A relatively small quantity thus transported has been destined for points outside the State. The tender board is making no effort to control the truck business.

Still Working on Purchasing Plan

Although there has been less discussion of the proposed resumption of the gasoline purchasing program, other developments having crowded it out of the foreground, work on the plan has not been relaxed. It is reported that virtually all the East Texas refiners whose plants are on railroad lines have signified their willingness to operate under the plan. There is no such unanimity, however, among the majors, who must be looked to to do the buying. Some of them are said to favor resumption of the program, but others—and they are understood to be in the majority—indicate they will not return to the plan without clear proof that regulations designed to stop production of hot oil are to be enforced.

Although the general market picture contains a few brighter colors than it did last week, market students express a belief that these may fade. They point out the possibility of injunction suits attacking the constitutionality of the tender board's activities. They refer to the large expectations built upon the presence in East Texas of L. R. Martineau, Jr., as special agent of the U. S. Government, and express doubt as to eventual results of his mission there. They evince skepticism concerning the adequacy of any gasoline purchasing program that may be set to work and concerning claims made about the character of results already achieved.

Natural Gasoline Stronger

The marked curtailment of gasoline output from East Texas served to bolster the natural gasoline market. East Texas motor fuel is of high volatility, and the more of it that is produced the less demand there is for natural. Conversely, the less gasoline from East Texas the more demand there is for natural to supply needed volatility. The curb on the East Texas gasoline production is likely to prolong the season of high demand for natural.

The natural gasoline market might

(Continued on Page 32)

Refined Oil Market Barometer

Outcome of the Government's newest drive against illegal oil operations in East Texas was awaited generally throughout the market in oil products. In the meantime prices were stiffened as a result of the temporary drop in output from that field. Natural gasoline was benefiting from the curtailment of East Texas high-volatility motor fuel. Colder weather was coming to the aid of burning oils. Lubricants showing seasonal let-up.

Mid-Continent—Gasoline up, but unsettled. Kerosene improved. Naturals stronger. Heating oils firmer. Bright stocks off.

East Coast—Gasoline tank car quotations fairly steady, notwithstanding extended price wars. Kerosene, distillate, gas oil and fuels firmer.

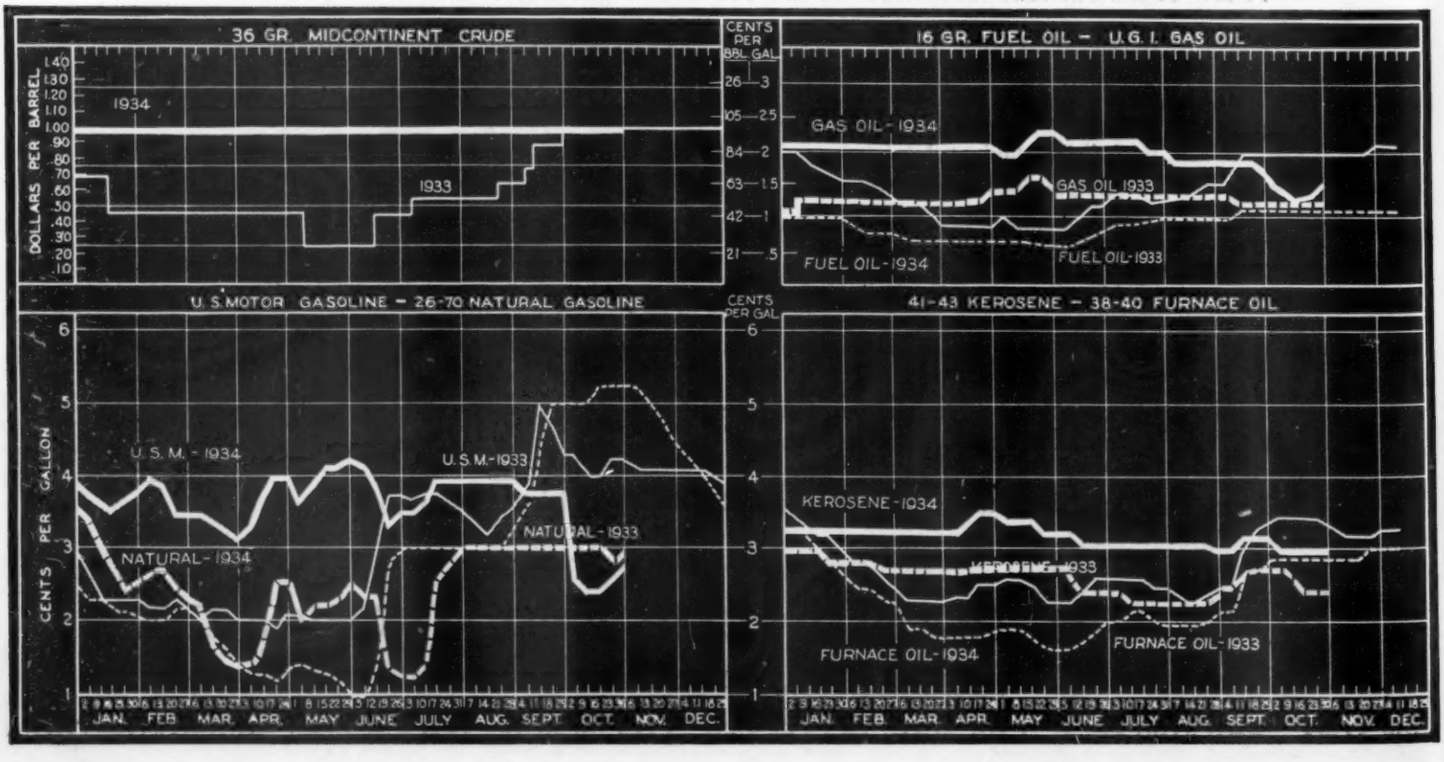
Gulf Coast—General market tone better. Kerosene firm. Motor oils offered with price concessions. Intrastate movement of fuel oil active, but less offered for outside markets.

Pennsylvania—Gasoline, fuel oil and bright stocks down. Entire market apprehensive.

California—Gasoline and fuel oil slightly weaker, but prices unchanged. General market unusually quiet.

Chicago—Gasoline tighter and in demand. Heating oils steadier.

Representative Mid-Continent Quotations on Crude Oil and Refined Products Basis Oklahoma (Group 3)



Gasoline Tank Car Quotations Holding Up Well in East Notwithstanding Further Price Wars

By C. O. WILLSON
New York Bureau, The Oil and Gas Journal

NEW YORK, Oct. 29.—In the face of a continued spread in tank wagon and service station "price wars" the tank car quotations on gasoline based on spot sales over the past week were holding up remarkably well. So far as known the major companies were maintaining the quotations on the various grades of gasoline at their refineries which have been in effect since the reductions were announced three weeks ago. The posted quotations of these companies which range from 5¼ to 5¾ cents depending on octane ratings for the unbranded white grades were being shaded in occasional sales by concerns obtaining their supplies from the Gulf Coast but this competition over the past week did not appear as serious as it did earlier in the month.

No special significance was attached in trade circles to this firmness in the gasoline tank car prices in the face of a demoralized tank wagon and service station situation at many points throughout the East. So far as the gasoline tank car prices are concerned it is pointed out that present levels have already anticipated a reduction in the posted schedules for crude oil. Due to this fact it is contended that unless the price reductions in crude oil are drastic, refiners would be justified in continuing their present tank car quotations for gasoline at their refineries and water terminals. Should a substantial reduction in crude oil prices materialize it is felt that some reduction would result in the tank car quotations with the exact amount largely dependent on competitive conditions at the Gulf Coast and Mid-Continent.

To End Price Wars

So far as the gasoline price wars were concerned there have been developments over the past few days which indicate that the participants are ready for a truce in many of these local engagements with a return to more normal price levels. As in the past the refiners who furnish the gasoline and not the jobber and dealer who distribute it, are the ones who are "holding the sack" in these latest battles. There has been evidence over the past week that several of these refinery sources of supply in this and other territories were tiring of their position of supporting distributors who daily make the front pages of the newspapers of this section explaining how they are being driven out of business by a price situation for which they claim they are LOT in any way responsible. The firmness in the gasoline tank car market previously explained shows that refiners do not intend to encourage the continuance of these low prices in the consumer markets indefinitely and with this support removed distributors are becoming more responsive to suggestions looking to a return to conditions which take into consideration the position of the refinery as well as the desire for more gallonage on the part of the tank wagon and service station operators.

Duplicate Part

Developments over the past few months in the gasoline market in all essential respects are a duplication of similar conditions in the past. The cycle starts when tank car prices based on open market sales gradually weaken reflecting an unhealthy crude oil situation. To secure outlets refiners give concessions of various kinds to independent jobbers and dealers until the latter enjoy exceptionally wide spreads with which to operate. These spreads eventually result in similar concessions being made to final consumers. These concessions usually are made secretly to start with and then openly. When this situation becomes intolerable to those distributing the bulk of gasoline the basis for the local price wars is furnished and price reductions start. They end when the independent refiners who were willing to support a jobber or dealer with a half-cent additional spread, balk when they are asked to support a situation in which the net tank wagon and service prices drop to levels below what the tank car prices should be. The cycle is concluded when it is realized that no one except the consumers benefit in these price wars and all parties concerned support a movement which ends in a return to what are termed "normal" price levels. In the present situation unless all signs are wrong refiners and marketers are nearing the end of the cycle.

This does not mean a return to prices which were in effect during the spring and summer months. What is "normal" in the gasoline market will be dependent largely on what happens in the present crude market crisis. It does mean, however, an end to a condition in which the refinery return based on guaranteed margins to the distributing branch engaged in price wars, was less than the cost of the crude oil from which the gasoline was refined.

With this past history in mind veterans of the gasoline tank car trade in this territory are content to stand on the sidelines and wait until the smoke has cleared in the distributing and crude oil ends of the business before attempting to get their own house in order for the remaining fall and winter months. Few are willing at this time to hazard a prediction as to the probable future trend in domestic and export gasoline prices over the remaining fall and winter months.

Statistical Situation

Market students who pay considerable attention to the available statistical data covering supply, demand and stocks of refinery products are pointing to the latest report of the Bureau of Mines covering August operations for the East Coast which are summarized in the following table:

EAST COAST REFINERY OPERATIONS
(Data in barrels)

	Aug., 1934	Aug., 1933	July, 1934
Crude to stills	14,900,000	15,011,000	15,230,000
Gasoline	5,968,000	6,000,000	6,111,000
Kerosene	723,000	718,000	760,000
Gas oil and distillate	1,764,000	1,234,000	1,558,000
Residual oils.	3,631,000	3,933,000	3,613,000
Lub. oils	590,000	637,000	580,000
Wax (pounds)	17,080,000	18,760,000	16,520,000
Coke (tons)..	12,200	17,600	12,400
Asphalt (tons)	160,900	121,100	154,400
Road oils ...	104,000	94,000	94,000

STOCKS END OF MONTH

	Aug., 1934	Aug., 1933	July, 1934
Gasoline	14,741,000	13,629,000	15,830,000
Kerosene	1,943,000	2,199,000	1,756,000
Gas oil and distillate	5,625,000	4,879,000	4,502,000
Residual oils.	7,786,000	4,624,000	7,041,000
Lub. oils	2,042,000	2,266,000	1,992,000
Wax (pounds)	53,188,000	20,905,000	50,284,000
Coke (tons)..	29,100	57,900	24,000
Asphalt (tons)	111,300	95,500	116,000
Road oils ...	76,000	154,000	82,000

These data indicate an unfavorable operating situation in August in that stocks of all products were increased with the exception of gasoline, asphalt and road oils. The decline in gasoline inventories at refineries was small when it is realized that August is the principal gasoline consuming month of the year and the period which should bring the largest withdrawal from gasoline storage.

Compared with August, 1933, the latest government report shows that stocks of gas oil and distillate, residual oils and petroleum wax are substantially higher than they were a year ago. In the case of the residual oils the gain is more than 60 per cent and accounts for the recent price decline in these products. Wax stocks at eastern refineries are 150 per cent greater than they were a year ago and this also reflects the weakness in both the refined and crude scale grades. Kerosene occupies a stronger statistical situation than does the heavier products.

Prices

The kerosene, distillate, gas oil and fuel oil prices were firmer over the past week with no changes in prices so far as the major refiners are concerned. Earlier in the month when the gasoline tank wagon and service station markets started to collapse a few sellers apparently thought the bottom was to fall out of the refinery market generally and there were reports of price concessions in practically all products. Tank car sales of gasoline were reported as low as 4¾ cents with the furnace oil distillates ranging down to 4¼ cents. Concessions of 5 to 10 cents per barrel were reported in fuel oil sales.

Over the past week kerosene sales were more active and the bottom of 5 cents was again established with several companies selling at 5¼ cents. The distillate, gas oil and heavy fuel markets were still considered dull but sellers were not willing to give price concessions. Markets in these products were awaiting developments in the crude oil situation.

Steam refined stocks and bright stocks were weak and any price changes reported were on the down side. The wax market was unchanged.

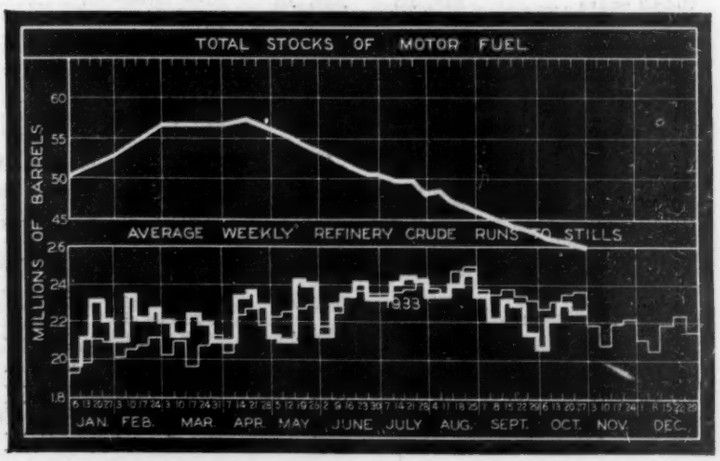
In the Gulf Coast market there was a better feeling apparent in both the gasoline and kerosene market. No inquiries of importance were reported.

American Petroleum Institute Weekly Refinery Statistics

Week Ending October 27, 1934

	Capacity reporting per cent	Daily crude runs (bbls.)	Finished motor fuel (bbls.)	Gas oil and fuel oil (bbls.)
East Coast	100.0	481,000	12,956,000	14,814,000
Appalachian	93.3	100,000	1,569,000	1,736,000
Indiana, Illinois, Kentucky	94.6	351,000	6,485,000	5,520,000
Oklahoma, Kansas, Missouri	83.7	223,000	3,724,000	3,786,000
Inland Texas	47.6	98,000	966,000	1,507,000
Texas Gulf	97.5	440,000	3,707,000	10,310,000
Louisiana Gulf	96.4	101,000	1,160,000	3,440,000
North Louisiana and Arkansas	83.7	45,000	255,000	582,000
Rocky Mountain	66.7	43,000	468,000	543,000
California	96.9	394,000	10,703,000	73,136,000
Total United States	89.7	2,276,000	41,993,000	115,374,000

Note: Finished motor stocks shown in graph and in table included those at refineries, at bulk terminals and in pipe lines, but do not include 5,000,000 to 7,000,000 bbls. of unfinished gasoline which could be reprocessed quickly.



REFINERY AND CRUDE PRICES

Quotations on refined products are for interstate or export movement except as otherwise noted

The following quotations are exclusive of the Federal excise taxes of 1 cent a gallon on gasoline and 4 cents on lubricating oils.

Refinery Gasolines

OKLAHOMA (Group 3)—	Oct. 30		Oct. 23	
U. S. Motor grades:				
Below 63 octane	.02¾	.03⅛	.02⅝	.03
63-70 octane	.03¾	.04	.03⅝	.04
60-62 400 grades:				
Below 63 octane	.03	.03¼	.02¾	.03¼
63-70 octane	.03⅞	.04⅛	.03⅝	.04
64-66 375	.03⅝	.03⅞	.03½	.03¾
68-70 360	.03¾	.04	.03⅝	.03⅞
NORTH TEXAS—				
U. S. Motor grades:				
Below 63 octane	.02⅞	.03	.02⅞	.03
63-70 octane	.03⅞	.04⅛	.03¾	.04⅛
60-62 400	.03	.03¼	.03	.03¼
64-66 375	.03⅝	.03⅞	.03⅝	.03⅞
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
U. S. Motor grades:				
Below 63 octane	.03¼	.03⅜	.03	.03¼
63-70 octane	.04½	.04⅝	.04½	.04⅝
60-62 400	.03¼	.03½	.03¼	.03½
68-70 360	.04	.04¼	.04	.04⅛
ARKANSAS (Ark., N. La. & Miss. del.)—				
U. S. Motor grades:				
Below 63 octane	.03¼	.03⅜	.03	.03¼
63-70 octane	.04½	.04⅝	.04½	.04⅝
CHICAGO (Based on Oklahoma Group 3)—				
U. S. Motor grades:				
Below 63 octane	.03⅛	.03¼	.02⅝	.03
63-70 octane	.04¼	.04⅜	.04¼	.04½
60-62 400	.02⅞	.03¼	.02⅝	.03
64-66 375	.03½	.04	.03½	.04
68-70 360	.03¾	.04	.03¾	.04
Aviation fighting grade	.04¾	.05	.04¾	.05
PENNSYLVANIA (inland refineries)—				
58-60 U. S. Motor:				
Below 60 octane	.04⅞		.05	
60-64.9 octane	.06		.06	
65-70 octane	.06⅜		.06⅜	
68-70 350	.06⅛		.06⅛	
CALIFORNIA (domestic movement)—				
54-58 U. S. Motor	.07	.08	.07	.08
58-60 400	.08	.09	.08	.09
EAST COAST—				
U. S. Motor, below 60 octane:				
*New York	.05¼		.05¼	
Baltimore	.05¼		.05¼	
U. S. Motor, 60-64 octane:				
*New York (Bayonne)	.05½		.05½	
Philadelphia	.05½	.05¾	.05½	.05¾
Boston	.05½	.05¾	.04	.04½
Baltimore	.05½		.05½	
Charleston, S. C.	.05½	.05¾	.05½	.05¾
U. S. Motor, 65 and above:				
*New York	.05¾		.05¾	
Philadelphia	.05¾	.06	.05¾	.06
Boston	.05¾	.06	.04½	.04¾
Charleston, S. C.	.05¾	.06	.06	

*All grades of gasoline one-fourth cent less for small barge shipments.

GULF COAST (domestic)—				
U. S. Motor:				
Below 60 octane	.04½		.04½	
60-64.9 octane	.04¾	.05	.04¾	.05
65 octane and higher	.05¼		.05¼	

Naphthas

	Oct. 30		Oct. 23	
PENNSYLVANIA (inland refineries)—				
50-52 (blending)	.04⅝		.04⅝	
52-54 450 (blending)	.04⅝		.04⅝	
54-56 450 (blending)	.04⅝		.04⅝	
50-52 450 (blending)	.04⅞		.04⅞	
CHICAGO (based on Oklahoma Group 3)—				
50-52 450 (blending)	.03¼	.03¾	.03½	.03¾
Cleaners' naphtha, 56-58 gr., 200 i.b.p.-320 e.p.	.06¾	.07	.06¾	.07
Lacquer diluent, 180 i.b.p.-250 e.p.	.07¾	.08	.07¾	.08
Lacquer diluent, 140 i.b.p.-200 e.p.	.08¾	.09	.08¾	.09
Rubber solvent, 68-70 gr., 100 i.b.p.-300 e.p.	.06¾	.07	.06¾	.07
Stoddard solvent, 300 i.b.p.-410 e.p., over 83° flash	.06¼	.06½	.06¼	.06½
Pet. thinner, 290-300 i.b.p.-415 e.p., over 83° flash	.06¼	.06½	.06¼	.06½
V.M.&P. naphtha, 56-58 gr., 190-200 i.b.p.-330 e.p.	.06¾	.07	.06¾	.07
Petroleum spirits	.05¾	.06	.05¾	.06

Natural Gasolines

OKLAHOMA (Group 3)—	Oct. 30		Oct. 23	
Grade 26-70	.03		.02⅞	
Grade 18-55	.03½		.03⅝	.03½
Low vapor pressure grades:				
14 lb. v.p. (max.)	.03¾		.03¾	
11 lb. v.p. (max.)	.04⅛	.04¼	.04⅛	.04¼
NORTH TEXAS—				
Grade 26-70	.02¾		.02⅝	.02¾
Grade 18-55	.03⅜		.03¼	.03⅜
Low vapor pressure grades:				
14 lb. v.p. (max.)	.03⅝	.03¾	.03⅝	.03¾
11 lb. v.p. (max.)	.04		.04	
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
Grade 26-70	.03⅜		.03¼	
CALIFORNIA—				
75-85 375	.06½	.06¾	.06½	.06¾

Kerosenes

(All kerosenes water white)

OKLAHOMA (Group 3)—	Oct. 30		Oct. 23	
41-43	.03	.03¼	.03	.03⅛
42-44	.03⅛	.03⅜	.03⅛	.03¼
NORTH TEXAS—				
40-41	.02⅞	.03⅛	.02¾	.03
41-43	.03	.03¼	.02⅞	.03⅛
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
41-43	.03⅜		.03⅜	
ARKANSAS (Ark., N. La. & Miss. del.)—				
41-43	.03⅜	.03½	.03⅜	.03½
PENNSYLVANIA (inland refineries)—				
45	.04⅝		.04⅝	
46	.04¾		.04¾	
47	.04⅞		.04⅞	
CHICAGO (based on Oklahoma Group 3)—				
41-43	.03	.03⅛	.03	.03¼
42-44	.03¼	.03⅜	.03¼	.03⅜
CALIFORNIA (Pacific Coast consumption)—				
38-40 high burning test	.04¾	.05¼	.04¾	.05¼
NEW YORK (Bayonne, N. J.)—				
41-43	.05	.05¼	.05	.05¼
GULF COAST (domestic)—				
41-43	.04½	.04⅝	.04½	.04⅝

Petroleum Coke

(Prices per ton f.o.b. refineries in Chicago area)
(Refineries will absorb freight to 80 cents a ton)

	Oct. 30	Oct. 23
Still run	5.75	5.75
Direct from still	6.75	6.75
Egg, nut, pea	8.25	8.25
Lump	8.25	8.25

Furnace Oils and Tractor Fuels

(Zero cold test under 190° flash and good odor)

OKLAHOMA (Group 3)—	Oct. 30		Oct. 23	
32-36 straw	.02⅝	.02¾	.02½	.02¾
36-38 straw	.02⅝	.02½	.02⅝	.02½
38-40 straw	.02½	.02⅝	.02½	.02⅝
38-40 prime white	.02⅝	.02¾	.02⅝	.02¼
NORTH TEXAS—				
38-40 straw	.02¼	.02⅝	.02½	.02⅝
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
36-40 furnace oil	.02½	.02¾	.02½	.02¾
ARKANSAS (Ark., N. La. & Miss. del.)—				
32-36 furnace oil	.02⅝		.02½	.02¾
CHICAGO (based on Oklahoma Group 3)—				
32-36 straw	.02⅝	.02⅞	.02½	.02⅝
38-40 straw	.02⅝	.02⅞	.02½	.02⅝
38-40 prime white	.02¾	.03	.02⅝	.02¾
NEW YORK (Bayonne, N. J.)—				
36-40 (No. 1 grade)	.05	.05¼	.05	.05¼
32-36 (No. 2 grade)	.04½		.04½	
21 industrial (No. 4 grade)	.04½		.04½	

Gas Oil, Diesel Oil and Fuel Oil

(Gas oil per gallon; Diesel and fuel oils per barrel)

OKLAHOMA (Group 3)—	Oct. 30		Oct. 23	
32-36 gas oil cracking stock	.01⅜	.01⅝	.01¼	.01½
U.G.I. gas oil	.01½	.01⅝	.01⅜	.01½
32-36, zero to 15 gas oil	.02½	.02⅝	.02⅝	.02⅝
28-30, No. 3 burner oil	.95	1.00	.95	1.00
26-30, zero to 10 fuel oil	.85	.95	.85	.95
24-26 fuel oil	.75	.80	.75	.80
20-22 fuel oil	.70	.72½	.70	.72½
Below 16 fuel oil	.60	.62½	.60	.62½
NORTH TEXAS—				
32-36 gas oil, industrial	.01¼	.01⅜	.01⅛	.01⅜
22-26 fuel oil	.67½	.70	.67½	.70
Below 20 fuel oil	.57½	.62½	.57½	.62½
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
30-32 gas oil, zero	.02⅝	.02½	.02⅜	.02½
14-16 fuel oil	.70	.75	.70	.75
ARKANSAS (Ark., N. La. & Miss. del.)—				
30-32 gas oil, zero	.02½		.02¾	.02½
32-36 gas oil	.02⅞	.02½	.02¼	.02⅝
14-16 fuel oil	.70	.75	.70	.75
CHICAGO (based on Oklahoma Group 3)—				
32-36 gas oil, industrial	.01½	.01⅝	.01⅜	.01½
28-30 zero to 10, fuel oil	.95	1.00	.95	1.00
26-28 zero to 10, fuel oil	.85	.90	.85	.90
22-26 zero to 10, fuel oil	.75	.80	.75	.80
18-22 zero to 10, fuel oil	.62½	.67½	.62½	.65
Below 18 fuel oil	.55	.60	.55	.60

Note: Fuel oils of more than 40 cold test generally 5 to 15 cents per barrel in all these areas.

PENNSYLVANIA (inland refineries)—				
36-40	.03⅝		.03⅞	.04
CALIFORNIA—				
Los Angeles:				
30-34 gas oil per bbl.	1.10	1.26	1.10	1.26
27 plus Diesel	1.05	1.15	1.05	1.15
27 plus Diesel (bunkers)	1.13	1.20	1.13	1.20
12-16 (bunker at tidewater)	.82	.85	.82	.85
10-16 (cargo lots)	.66	.75	.66	.75
12-17 (tank cars)	.60	.80	.60	.80
San Joaquin Valley:				
10-18 (tank cars)	.55	.70	.55	.70
San Francisco:				
27 plus Diesel per bbl.	1.15	1.25	1.15	1.25
27 plus Diesel (bunkers)	1.19		1.19	
10-16 (bunkers)	.89		.89	
GULF COAST—				
28-30 gas oil	.03½	.03⅝	.03½	.03⅝
28-30 Diesel (bunkers)	1.70		1.70	
Bunker C (bulk cargoes)	.90	.95	.90	.95
Bunker C (bunkers)	1.00		1.00	
NEW YORK (Bayonne, N. J.)—				
27 plus, gas oil	.04¼	.04½	.04½	
28-30 Diesel (tank cars)	.04¼		.04¼	
28-30 Diesel (lighterage 6½ cents per bbl.)	1.89		1.89	
*Bunker C (to ocean-going ships in N. Y. harbor)	1.15		1.15	

*Lighterage charge 5 cents per barrel additional.

Neutral Oils

(Vis. at 100° F. except Pennsylvania, and color N.P.A.)

OKLAHOMA (Group 3)—	Oct. 30	Oct. 23
Zero to 10 Cold Test:		
150-3	.10	.10
180-3	.11¼	.11¼
180-4	.10¾	.10¾
200-3	.11¾	.11¾
200-4	.11¼	.11¼
240-3	.13¾	.13¾
240-4	.13¼	.13¼
280-3	.14¾	.14¾
280-4	.14	.14
300-3½	.15¼	.15¼
400-4	.17¼	.17¼
100-2 paraffin oil	.05¾	.05¾
15-20 Cold Test:		
200-3	.10¾	.10¾
200-4	.10¼	.10¼
240-3	.12¾	.12¾
240-4	.12¼	.12¼
280-3	.13¾	.13¾
280-4	.13	.13
GULF COAST—		
Pale Oils:		
200-3	.07½ .08	.07½ .08
300-3	.08 .08½	.08 .08½
500-3½	.09 .09½	.09 .09½
750-3½	.09½ .10	.09½ .10
1,200-3½	.10 .10½	.10 .10½
2,000-4	.10¼ .10¾	.10¼ .10¾
Red Oils:		
200-5-6	.07¼ .07½	.07¼ .07½
300-5-6	.07¾ .08	.07¾ .08
500-5-6	.08½ .09	.08½ .09
750	.09 .09½	.09 .09½
1,200-5-6	.09¾ .10	.09¾ .10
CALIFORNIA—		
Pale Oils:		
100-2½-3	.12½ .14½	.12½ .14½
200-2½-3	.12½ .14½	.12½ .14½
300-3-3½	.12½ .14½	.12½ .14½
350-3-4	.12½ .14½	.12½ .14½
400-3-4	.12½ .14½	.12½ .14½
450-3-4	.12½ .14½	.12½ .14½
550-3-4	.12½ .14½	.12½ .14½
600-3-4	.12½ .14½	.12½ .14½
Red Oils:		
200-4-5	.12½ .14½	.12½ .14½
300-5-6	.12½ .14½	.12½ .14½
350-5-6	.12½ .14½	.12½ .14½
400-5-6	.12½ .14½	.12½ .14½
450-5-6	.12½ .14½	.12½ .14½

500-5-6	.12½	.14½	.12½	.14½
600-5-6½	.12½	.14½	.12½	.14½
700-6½ plus	.12½	.14½	.12½	.14½
750-6½ plus	.12¼	.14½	.12½	.14½
900-6½ plus	.12½	.14½	.12½	.14½
PENNSYLVANIA—				
150 vis. at 70° F., 3 color, 400-405 flash:				
Zero pour test	.23½	.24	.23½	.24
10 pour test	.22½	.23	.22½	.23
15 pour test	.22	.22½	.22	.22½
25 pour test	.21	.21½	.21	.21½
180 vis. at 70° F., 3 color:				
25 pour test	.24½	.25	.24½	.25
200 vis. at 70° F., 3 color:				
Zero pour test	.30	.30½	.30	.30½
10 pour test	.29	.29½	.29	.29½
15 pour test	.28½	.29	.28½	.29
25 pour test	.27½	.28	.27½	.28

Bright and Steam Refined Stocks

OKLAHOMA (Group 3)—	Oct. 30		Oct. 23	
Bright Stocks:				
190-200 D	.18		.19	
150-160 D, 0-10	.15		.16	
150-160 D, 10-25	.14½		.15½	
150-160 24-40	.14		.15	
150-160 E	.14		.15	
Steam refined:				
630 light green (treated)	.13		.13	
600 light green (untreated)	.06	.08	.06	.08
600 dark green (untreated)	.04½	.07	.04½	.07
PENNSYLVANIA—				
Bright Stocks (Pennsylvania grade, No. 8 color, 145-50 at 210; 540-550 flash):				
10 pour test	.20½		.22	.22½
15 pour test	.19½		.21½	.22
20 pour test	.19		.21	.21½
25 pour test	.17		.18	.20
Steam refined:				
600	.09½	.10½	.09½	.10½
650	.13	.13½	.13	.13½
600 Pennsylvania flash	.14	.14½	.14	.14½
630 flash	.18	.18½	.18	.18½
600 Warren E filtered	.14	.14½	.14	.14½

Wax and Petrolatum

(Prices per pound)

OKLAHOMA (Group 3)—	Oct. 30		Oct. 23	
124-126 white crude scale	.03½	.03⅝	.03½	.03⅝
PENNSYLVANIA—				
122-124	.0325	.0330	.0325	.0330
124-126	.0330	.0335	.0330	.0335
NEW YORK—				
Wax (a.m.p.) in bags fully refined:				
120-122	.0420	.0430	.0420	.0430
123-125	.0440	.0460	.0440	.0460
125-127	.0445	.0470	.0445	.0470
130-132	.05	.0510	.05	.0510
133-135	.0545	.0570	.0545	.0570
135-137	.0570	.0595	.0570	.0595
124-126 crude scale	.03¼		.03¼	
Petrolatum in barrels in carload lots:				
Dark green	.01⅞		.01⅞	
Amber	.02⅞	.03	.02⅞	.03
Extra amber	.03	.03⅛	.03	.03⅛
Lily white	.06⅝	.06¾	.06⅝	.06¾
Snow white	.07¾	.07⅞	.07¾	.07⅞
Cream	.05⅝	.05¾	.05⅝	.05¾
CHICAGO (f.o.b. switching district)*—				
122-124 wax	.0490	.0500	.0490	.0500
125-127 wax	.0515	.0525	.0515	.0525
127-129 wax	.0530	.0540	.0530	.0540
130-132 wax	.0590	.0600	.0590	.0600
132-134 wax	.0615	.0625	.0615	.0625

*Cents per pound on carlot orders in burlap bags of 225 lbs. approx. Add 3° F. a.m.p.

Export Prices

GASOLINE

GULF COAST—	Oct. 30	Oct. 23
U. S. Motor	.03⅞	.03¾
60-62 400	.04	.03⅞
61-63 390	.04⅛ .04¼	.04 .04⅛
64-66 375	.04⅜	.04¼
LOS ANGELES, CALIF.—		
U. S. Motor grades:		
53-55 octane	.04 .04¼	.04 .04¼
55-65 octane	.04¼ .04½	.04¼ .04½
65-67 octane	.04½ .04¾	.04½ .04¾
67-69 octane	.04¾ .05	.04¾ .05
Above 69 octane	.05 .05¼	.05 .05¼
58-60 400 endpoint	.04¾ .05½	.04¾ .05½
KEROSENE		
GULF COAST—		
41-43 prime white	.03⅞	.03⅞
41-43 water white	.04	.04
44 water white	.04⅛	.04⅛
LOS ANGELES, CALIF.—		
41-43 water white	.04¼ .04¾	.04¼ .04¾
LUBRICANTS		
NEW YORK (f.a.s. in bbls.)—		
Cylinder Stocks:		
600 Warren E	.21½ .22	.21½ .22
600 S.R. unfiltered	.17 .18	.17 .18
650 S.R. unfiltered	.18½ .19	.18½ .19
600 flash S.R.	.19 .19½	.19 .19½
630 flash S.R.	.25 .25½	.25 .25½
Bright Stocks:		
8 color	.25½ .26½	.25½ .26½
6½ plus color, in dilution	.24½ .25	.24½ .25
NEUTRAL OILS		
200-3 color	.34 .35	.34 .35
150-3 color	.27 .28	.27 .28
PARAFFIN WAX (Fully Refined)		
NEW YORK (prices per pound)—		
120-122 a.m.p.	.0405 .0425	.0405 .0425
123-125 a.m.p.	.0435 .0455	.0435 .0455
125-127 a.m.p.	.0440 .0465	.0440 .0465
128-130 a.m.p.	.04¾ .0490	.04¾ .0490
130-132 a.m.p.	.0495 .0505	.0495 .0505
133-135 a.m.p.	.0540 .0565	.0540 .0565
135-137 a.m.p.	.0565 .0590	.0565 .0590

Crude Oil Gravity Table

Gravity—	Oklahoma and Kansas 1	North Texas, Central Texas and East Central Texas 2	North Louisiana and Arkansas 3	Gray County, Texas 4	Carson, Hutchinson and Moore Counties, Texas 5	Conroe, Texas 6	Salt Creek, Wyo. 7	Gulf Coast, Texas and Louisiana 8	Gulf Coast, Texas and Louisiana 9	Cotton Valley, Louisiana 10
Below 20	....	....	....	....	....	....	....	$.82	$.82	....
20-20.9	....	....	....	....	....	....	....	.84	.84	....
21-21.9	....	....	....	....	....	....	....	.86	.86	....
22-22.9	....	....	....	....	....	....	....	.88	.88	....
23-23.9	....	....	....	....	....	....	....	.90	.90	....
24-24.9	....	....	....	....	....	....	....	.92	.92	....
Below 25	*$.76	....	....	....	....	....	....	....	....	$.70
25-25.9	*.78	....	....	....	....	....	....	.94	.94	72
26-26.9	*.80	....	....	....	....	....	....	.96	.96	.74
27-27.9	*.82	....	....	....	....	....	....	.98	.98	.76
28-28.9	*.84	....	....	....	....	....	....	1.00	1.00	.78
Below 29	.84	$.79	$.79	....	....	....	$.84	....	....	....
29-29.9	.86	.81	.81	....	....	....	.86	1.02	1.02	.80
30-30.9	.88	.83	.83	....	....	....	.88	1.04	1.04	.82
31-31.9	.90	.85	.85	....	....	....	.90	1.06	1.05	.84
32-32.9	.92	.87	.87	....	....	....	.92	1.08	1.06	.86
33-33.9	.94	.89	.89	....	....	....	.94	1.10	1.07	.88
34-34.9	.96	.91	.91	....	....	....	.96	1.12	1.08	.90
Below 35	....	....	....	$.79	$.69	....	....	....	....	....
35-35.9	.98	.93	.93	.81	.71	$1.09	.98	1.12	1.09	.92
36-36.9	1.00	.95	.95	.83	.73	1.11	1.00	1.12	1.10	.94
37-37.9	1.02	.97	.97	.85	.75	1.13	1.02	1.12	1.11	.96
38-38.9	1.04	.99	.99	.87	.77	1.15	1.04	1.12	1.12	.98
39-39.9	1 06	1.01	1.01	.89	.79	1.17	1.06	1 12	1.13	1.00
40 and over	1 08	1.03	1.03	.91	.81	1.19	1.08	1.12	1.14	1 02

Note.—Effective October 25, 1934, Kanotex Refining Co. and Globe Oil & Refining Co. posted as follows: Below 30 gravity, 40 cents; 30 gravity, 42 cents, with 2 cents added for each additional degree up to and including 40 gravity and over at 62 cents. The prices are effective in Oklahoma and Kansas.

*The following companies purchasing crude oil in Kansas or Oklahoma, or both, begin their price schedule: Below 25°, 76 cents; 25-25.9°, 78 cents, with 2 cents added for each degree upward to 40 and over at $1.08; Carter Oil Co., Magnolia Petroleum Co., Pure Oil Co., Rock Island Refining Co., Shell Petroleum Corp., Sinclair Prairie Oil Marketing Co., Skelly Oil Co., and Wilcox Oil & Gas Co. All others begin their schedules at below 29°, 84 cents, excepting Phiitex Oil Co., which begins with below 31° at 88 cents.

Column 1—Effective September 29, Texas Co. of Oklahoma; Stanolind Crude Oil Purchasing Co. in Kansas and Oklahoma; Anderson & Prichard, Inc., in Oklahoma; Bell Oil & Gas Co. in Oklahoma; Carter Oil Co. in Oklahoma and Kansas; Deep Rock Oil Co. in Oklahoma; Derby Oil Co. in Kansas; Globe Refining Co. in Oklahoma; Golden Rule Refining Co. in Kansas; Gypsy Oil Co. in Oklahoma and Kansas; Kanotex Refining Co. in Kansas; Magnolia Petroleum Co. in Oklahoma; Mid-Continent Petroleum Corp. in Oklahoma; National Refining Co. in Kansas and Oklahoma;; Shell Petroleum Corp. in Kansas and Oklahoma; Sinclair Prairie Oil Marketing Co. in Kansas and Oklahoma; Texas Co. in Oklahoma; Tide Water Oil Co. in Oklahoma; Vickers Refining Co. in Kansas; Continental Oil Co. in Kansas and Oklahoma; Empire Pipe Line Co. in Oklahoma and Kansas; Phiitex Oil Co. in Kansas and Oklahoma; Pure Oil Co. in Oklahoma; Skelly Oil Co. in Kansas. Effective September 29, by White Eagle Oil Corp. in Kansas; October 1 by Barnsdall Refineries, Inc., in Oklahoma.

Column 2—Effective September 29, by Texas Co., Stanolind Crude Oil Purchasing Co., Humble Oil & Refining Co., Sinclair Prairie Oil Marketing Co., Gulf Pipe Line Co., Magnolia Petroleum Co., Bell Oil & Gas Co., Continental Oil Co. Effective September 29, in the Van Pool, Van Zandt County, Pure Oil Co. posted below 29°, 84 cents, with 2 cents added for each degree up to 40 and over at $1.08.

Column 3—Effective September 29, by Texas Co., Magnolia Petroleum Co., Gulf Refining Co. Effective December 22, Stanolind Oil & Gas Co. in Pine Island, Louisiana, and Marion County, Texas, posted below 29°, 79 cents, with 2 cents added for each degree up to 40 and over at $1.03. Effective March 17, 1934, by Standard Oil Co. of Louisiana and Louisiana Oil Refining Co. Starting with below 25°, 71 cents, adding 2 cents for each degree upward to 40 and over at $1.03.

Column 4—Effective September 29, by Texas Co., Humble Oil & Refining Co., Magnolia Petroleum Co., Sinclair Prairie Oil Marketing Co., and H. F. Wilcox Oil & Gas Co. On same day Phiitex Oil Co. posted below 31°, 71 cents, with 2 cents added for each degree up to 40 and over at 91 cents. Effective June 1, 1934, Texas Co. (see note above).

Column 5—Effective September 29, by Texas Co., Humble Oil & Refining Co., Gulf Pipe Line Co., Magnolia Petroleum Co., Wilcox Oil & Gas Co., Continental Oil Co. On same day, Phiitex Oil Co. posted below 31°, 61 cents, with 2 cents added for each degree upward to 40 and over at 81 cents. Effective June 1, 1934, Texas Co. (see note above).

Column 6—Effective September 29, by Humble Oil & Refining Co. and Tide Water Oil Co. and on September 30, by Texas Co., which on September 29 had posted a schedule of $1.07 to $1.12 with a 1-cent spread on each degree.

Column 7—Effective September 29, by Stanolind Oil & Gas Co.

Column 8—Effective September 29, by Humble Oil & Refining Co., Gulf Pipe Line Co., Shell Petroleum Corp., Pure Oil Co., Sinclair Prairie Oil Marketing Co. On October 2, Magnolia Petroleum Co. posted Lockport, Louisiana; 20-20.9°, 84 cents with 2 cents added for each degree upward to 34 and over at $1.12, and in Cameron Meadows and Iowa, Louisiana; below 20°, 72 cents with 2 cents added for each degree up to 34 and over at $1.02. These prices were 2 cents higher on each degree than Magnolia prices posted on September 29. Effective September 29, Shell Petroleum Corp. posted in Iowa, Louisiana, district: Below 20°, 70 cents, with 2 cents added for each degree upward to 34° and over at $1; and in Black Bayou and White Castle, Louisiana: Below 20°, 80 cents, with 2 cents added for each degree upward to 34° and over at $1.10.

Column 9—Effective September 30, Texas Co. (On September 29, Texas Co. had posted a schedule of 2 cents on each degree, but changed it on September 30.)

Column 10—Effective September 29, by Louisiana Oil Refining Co.

(California Crude Oil Prices on Page 33)

Crude Oil Prices

Oklahoma, Kansas, North Central and East Central Texas

East Texas	$1.00
Corsicana (heavy) June 17, 1933)*	.30
Other fields	(See gravity table)

Note—In East Texas, effective September 29, 1933, by Texas Co., Stanolind Crude Oil Purchasing Co., Humble Oil & Refining Co., Shell Petroleum Corp., Gulf Pipe Line Co., Tide Water Oil Co., Sinclair Prairie Oil Marketing Co., Magnolia Petroleum Co., Sun Oil Co., Panola Pipe Line Co., Empire Oil & Refining Co., and Atlas Pipe Line Co. On October 22, 1934, the Atlas Pipe Line Co. posted 60 cents per barrel in East Texas.
*Magnolia Petroleum Co.

West Texas

Crane, Upton, Crockett, Howard, Glasscock, Mitchell (Sept. 29, 1933)	$.70
Ector, Winkler and Pecos Counties and Lea County, New Mexico (Sept. 29, 1933)	.78
Pecos County, Yates shallow Pool (Sept. 29, 1933)*	.68
Jones and Fisher Counties*	See gravity table

Note—Effective September 29, 1933, by Humble Oil & Refining Co., Texas Co., Gulf Pipe Line Co., Shell Petroleum Corp., Magnolia Petroleum Co., and by Stanolind Oil & Gas Co. in Winkler County, Texas.
*Shell Petroleum Corp.

Gulf Coast

Grade A and Grade B specifications discontinued by leading buyers.

	(See gravity table)
Tomball (see note)*	$1.13
Livingston (Sept. 29, 1933)†	1.00
Cleveland (Jan. 11, 1934)	1.00
Greta (Sept. 29, 1933)	.85
Refugio, light	(See gravity table)
Refugio, heavy (Sept. 29, 1933)‡	.86
Markham and High Island	(See Gulf Coast gravity table)
Conroe	(See Conroe gravity table)
Bosco, La. (Oct. 15, 1934)§	$1.02

Note—Tomball, effective September 29, by Humble Oil & Refining Co. and October 1 by Magnolia Petroleum Co., and November 10, by Stanolind Oil & Gas Co.
*Greta posted by Texas Co. †Shell Petroleum Corp. ‡Refugio heavy, by Humble Oil & Refining Co. Cleveland (Liberty County), posted by Magnolia Petroleum Co. §Bosco posted by Pure Oil Co.

South Central and Southwest Texas

(See note below table)

Darst Creek	$.97
Mirando	.80
Luling (Sept. 29, 1933)	.75
Pettus	1.05
Salt Flat	.87
Lytton Springs (Sept. 29, 1933)	.95
Duval County (Sept. 29, 1933)	.80
Saxet	.85

Note—Effective on September 29 by Humble Oil & Refining Co., in Darst Creek, Mirando, Pettus, Salt Flat and Saxet. Effective September 29 in Darst Creek by Gulf Pipe Line Co. and Texas Co. Effective October 2 by Magnolia Petroleum Co. Effective in Pettus and Salt Flat on September 29 by Humble Oil & Refining Co. and Gulf Pipe Line Co. Luling and Lytton Springs by Magnolia Petroleum Co. Duval County by Texas Co. Saxet, effective September 29, by Humble Oil & Refining Co. and Texas Co.

(Continued on Page 33)

TANK WAGON MARKETS

Quotations for gasoline and kerosene in United States, as furnished by the larger marketing concerns, include taxes

October 30, 1934

Taxes

The gasoline quotations given in the following tables include the 1 cent Federal tax, as well as state, county and city taxes. The gasoline quoted is the regular or standard grade. In most marketing areas a third grade and a premium grade are also available.

Discounts

Under the standard form of commercial consumer contract which went into effect March 1, 1934, save in California, Oregon Washington, Arizona and Nevada, a discount of 1 cent a gallon off tank wagon or 3 cents a gallon off retail prices, is permitted for purchases running between 4,000 and 10,000 gallons a month, and 2 cents a gallon off tank wagon, or 4 cents a gallon off retail prices, for purchases in lots of more than 10,000 gallons a month The minimum delivery is 25 gallons.

Rocky Mountain District

CONTINENTAL OIL CO.

	Gasoline: Tank wagon	Service station	Incl'ds tax of	Kero. tank wagon
Denver, Colo...	18.0	20.0	5.0	12 5
Pueblo	18.0	20.0	5.0	11.0
Grand Junction	20.5	22.5	5.0	15.0
Casper, Wyo. ..	18.0	20.0	5.0	11 5
Cheyenne	18.0	20.0	5.0	13.0
Butte, Mont. ..	21.0	23.0	5.0	17.5
Billings	21.0	23.0	5.0	16.5
Helena	23.0	25.0	5.0	17.5
Great Falls ...	21.5	23.5	5.0	17.5
Salt Lake, Utah	19.0	21.0	5.0	16.0
Boise, Idaho ..	22.5	24.5	5.0	18.0
Twin Falls	22.5	24.5	5.0	18.0
Albu'que, N. M.	18.0	20.0	*7.0	13.0

*One-cent city tax.

Effective March 1, 1934, discount to dealers with or without contract throughout Continental territory: Undivided dealer discount off service station price, 4 cents; divided dealer accounts, 3½ cents.

Standard Oil Co. (Indiana)

	Gasoline: Tank wagon	Service station	Incl'ds tax of	Kero. tank wagon
Chicago	12.8	12.8	4.0	5.0
Decatur, Ill. ..	14.4	9.9	4.0	10.2
E. St. Louis ...	14.1	9.9	4.0	9.5
Joliet	14.5	16.5	4.0	10.2
Peoria	14.4	10.0	4.0	10.2
Quincy	12.9	14.9	4.0	10.0
Davenport, Ia..	14.2	14.0	4.0	10.1
Des Moines ...	14.1	16.1	4.0	10.1
Mason City	14.4	16.4	4.0	10.1
Sioux City	14.3	16.3	4.0	9.7
Duluth, Minn. .	15.0	17.0	4.0	10.4
Mankato	14.7	16.7	4.0	9.5
Minneapolis ...	15.7	13.4	4.0	10.4
LaCrosse, Wis..	15.7	17.7	4.0	10.8
Green Bay	15.9	17.9	5.0	10.2
Milwaukee	14.6	14.6	5.0	9.0
Madison	15.7	16.3	5.0	9.9
Detroit, Mich. .	15.0	17.0	4.0	10.5
Grand Rapids .	14.7	16.7	4.0	10.2
Saginaw	15.0	17.0	4.0	10.5
Evansville, Ind.	13.5	12.5	5.0	10.0
Indianapolis ..	16.2	18.1	5.0	10.2
South Bend ...	16.4	18.4	5.0	9.0
Fargo, N. Dak.	15.7	17.7	4.0	11.4
Huron, S. Dak.	16.2	18.2	5.0	11.4
Sioux Falls ...	15.6	17.6	5.0	10.9
Kans. C., Mo.*	13.6	15.6	4.0	7.5
Springfield ...	13.3	15.3	4.0	8.3
St. Louis	12.7	12.5	3.5	8.7
St. Joseph* ...	13.6	15.6	4.0	7.8
Wichita, Kans..	13.3	15.2	4.0	7.5
Bartlesville, Ok.	15.7	18.2	5.0	8.5

*State tax 2 cents, 1-cent city tax and 1-cent Federal tax.

Discounts to dealers, effective March 1, 1934: Undivided accounts, 4 cents a gallon on Red Crown Ethyl and Standard Red Crown, divided accounts, 3½ cents a gallon on Red Crown Ethyl and Standard Red Crown.

Stanolex Furnace Oil in Chicago

Effective Sept. 6, 1934, f.o.b. Chicago tank wagon prices: No. 1 (36-40 lt. stw. zero), less than 100 gallons, 8¼ cents; 100-149 gallons, 7¼ cents; 150 gallons or more, 6¾ cents; No. 2 (30-34, stw. zero), less than 150 gallons, 7⅛ cents; No. 3 (23-26, zero), less than 150 gallons, 7 cents; No. 4 (12-16, zero), less than 400 gallons, 6⅛ cents; viscosity of No. 4, 90-115 at 100° F.; No. 5, less than 400 gallons, 5¾ cents. For deliveries of more than stated quantities of Nos. 2, 3, 4 and 5, deduct 1 cent.

Naphtha

	Tank wagon*
Stoddard spirits	16.9
V.M.&P. naphtha	18.0
Cleaners' naphtha	18.0
Stanisol	18.0

*Prices include 3-cent Illinois tax, but not 1-cent Federal tax.

Prices f.o.b. Chicago, September 13, 1933. Each of above prices subject to discount of 1 cent per gallon for 150-gallon lots if covered by contracts.

Southern District

STANDARD OIL CO. (KENTUCKY)

	Gasoline: Tank wagon	Service station	Incl'ds tax of	Kero. tank wagon
Atlanta, Ga. ..	19.0	22.0	7.0	14.5
Augusta	20.0	22.0	7.0	14.5
Macon	20.0	22.0	7.0	14.5
Savannah	19.0	21.0	7.0	14.0
Birm'ham, Ala..	18.0	20.0	8.0	11.0
Mobile	20.5	22.5	8.0	12.0
Montgomery ..	21.5	23.5	8.0	15.0
Jackson, Miss..	18.5	20.5	8.0	13.0
Vicksburg	15.5	17.5	7.0	12.0
Jack'ville, Fla..	18.0	20.0	8.0	11.5
Miami	18.0	20.0	8.0	13.5
Pensacola	18.0	20.0	8.0	13.5
Tampa	18.0	20.0	8.0	12.5
Lexington, Ky..	18.5	20.5	6.0	11.5
Covington	14.0	15.0	6.0	11.5
Louisville	18.0	20.0	6.0	11.0
Paducah	16.5	18.5	6.0	11.0

In addition to the state tax of 4 cents on gasoline, Montgomery has city and county tax of 2 cents on gasoline and one-half cent on kerosene. Kerosene prices in Georgia and Mississippi include 1 cent state tax; in Alabama, an inspection fee of one-half cent on kerosene and one-fortieth cent on gasoline; in Florida an inspection fee of one-eighth cent on kerosene and gasoline. To Pensacola, Mobile and Birmingham state taxes on gasoline add 1 cent city tax.

Southwestern District

MAGNOLIA PETROLEUM CO.

	Gasoline: Tank wagon	Service station	Incl'ds tax of	Kero. tank wagon
Dallas, Tex. ...	16.0	18.0	5.0	6.0
Fort Worth ...	16.0	18.0	5.0	6.0
Houston	16.0	18.0	5.0	8.5
San Antonio ..	16.0	18.0	6.0	8.5
El Paso	18.5	20.5	5.0	11.0
Muskogee, Ok..	16.0	18.0	5.0	6.0
Okla. City	15.0	17.0	5.0	7.0
Tulsa	16.0	18.0	5.0	7.5
Ft. Smith, Ark.	13.5	15.5	5.0	8.0
Little Rock ...	13.5	15.5	7.5	9.0
Texarkana	12.0	14.0	5.0	8.0

Atlantic Coast District

STANDARD OIL CO. OF NEW JERSEY

	Gasoline: Tank wagon	Service station	Incl'ds tax of	Kero. tank wagon
Atl'tic City, N.J.	9.5	12.0	4.0	10.0
Newark	7.4	9.9	4.0	8.5
Annapolis, Md..	12.6	15.6	5.0	10.0
Baltimore	10.5	13.0	5.0	9.5
Cumberland ...	14.0	17.5	5.0	12.7
Wash'g'n, D. C.	10.0	12.5	3.0	11.5
Danville, Va. ..	15.7	19.2	6.0	12.9
Norfolk	12.2	14.7	6.0	11.3
Petersburg	12.3	14.8	6.0	11.4
Richmond	12.3	14.8	6.0	11.7
Roanoke	13.3	15.8	6.0	12.9
Charls'n, W.Va.	14.0	17.5	5.0	12.6
Parkersburg ..	12.3	15.3	5.0	11.2
Wheeling	14.0	17.5	5.0	12.2
Charlotte, N. C.	17.0	20.5	7.0	13.5
Hickory	15.5	18.0	7.0	13.7
Mt. Airy	17.7	21.2	7.0	13.8
Raleigh	15.5	18.0	7.0	13.3
Salisbury	12.5	15.0	7.0	13.6
Charleston, S.C.	15.2	18.7	7.0	11.3
Columbia	15.0	17.5	7.0	13.2
Spartanburg ..	14.5	17.0	7.0	13.5

Effective October 23, tank wagon gasoline refers to dealer instead of retail prices.

Price basis to dealers: Divided dealers at dealer price, which is 2½ cents above tank car; undivided dealers at regular price less one-half cent. Discount for kerosene, 1 cent off tank wagon price for 25 gallons or more under contract (contract not necessary in Baltimore) except in New Jersey, where no discount is given.

Nebraska

STANDARD OIL CO. OF NEBRASKA

	Gasoline: Tank wagon	Service station	Incl'ds tax of	Kero. tank wagon
Omaha	15.6	17.4	5.0	10.0
McCook	16.3	18.3	5.0	10.7
Norfolk	16.0	17.9	6.0	10.4
North Platte ..	16.4	18.3	5.0	10.0
Scottsbluff	17.1	18.3	5.0	9.0

Note—Discount to dealers, including any rentals under lease and agency agreements: Undivided accounts, Standard Red Crown and Red Crown Ethyl Gasoline 4 cents. Reliance (third brand) 3 cents, under service station price. Divided accounts, Standard Red Crown Ethyl Gasoline 3½ cents. Reliance (third brand) 2½ cents under service station price. Discounts to consumers covered only by form CD-1, official commercial consumer contract.

Central South District

STANDARD OIL CO. OF LOUISIANA

	Gasoline: Tank wagon	Service station	Incl'ds tax of	Kero. tank wagon
N. Orleans, La.	14.8	18.3	*7.0	†12.0
Baton Rouge ..	14.2	17.7	6.0	†12.0
Alexandria	15.1	18.6	*7.0	†10.0
Lafayette	15.3	18.8	*7.0	†12.0
Lake Charles ..	15.2	18.7	*7.0	†12.0
Shreveport	10.5	13.0	6.0	†10.0
Knoxville, Tenn.	17.5	20.5	8.0	13.5
Memphis	16.6	19.6	8.0	10.5
Chattanooga ..	13.0	16.5	8.0	11.0
Nashville	17.0	20.0	8.0	12.0
Bristol	14.5	17.0	8.0	14.0

*Includes city tax of 1 cent. †Louisiana kerosene prices include 1-cent state tax.

Effective October 23, tank wagon gasoline refers to dealer instead of retail prices.

Price bases to dealers: Divided dealers at dealer price, which is 2½ cents above tank car; undivided dealers at dealer price less one-half cent.

Pacific Coast Territory

STANDARD OIL CO. OF CALIFORNIA*

	Gasoline: Tank wagon†	Posted retail	Incl'ds tax of	Kero. tank wagon
San Francisco .	16.5	18.5	4.0	12.5
Los Angeles ..	15.5	17.5	4.0	12.5
Fresno, Calif. ..	17.0	19.0	4.0	14.0
Phoenix, Ariz..	20.0	22.0	6.0	‡16.0
Reno, Nev.	19.0	21.0	6.0	15.5
Portland, Ore..	19.0	21.0	6.0	13.5
Seattle, Wash..	19.0	21.0	6.0	13.5
Tacoma	19.0	21.0	6.0	13.5
Spokane	22.0	24.0	6.0	18.0

*Retail prices posted by Standard Stations, Inc., a subsidiary.

†Prices are at company's plant or depots, as company does not operate stations. A 4-cent per gallon discount is given dealers and customers taking tank wagon lots except in Phoenix where the discount is 1 cent.

‡Includes 5-cent state tax.

Pennsylvania, Delaware and Part of New England

ATLANTIC REFINING CO.

	Gasoline: Tank wagon	Service station	Incl'ds tax of	Kero. tank wagon
Philadelphia, Pa.	11.75	12.0	4.0	9.0
Pittsburgh	11.75	12.0	4.0	10.0
Allentown	13.25	15.0	4.0	10.0
Erie	13.25	15.0	4.0	9.0
Scranton	13.25	15.0	4.0	10.0
Altoona	13.25	15.0	4.0	10.0
Dover, Del.	13.25	15.0	4.0	10.0
Wilmington	13.25	15.0	4.0	9.0
Springf'd, Mass.	11.5	12.0	4.0	8.0
Worcester	12.5	13 0	4.0	8.5
Hartford, Conn.	14.0	16.0	3.0	7.5
New Haven ...	12.75	14.0	3.0	7.5
Providence, R.I.	11.0	11.5	3.0	8.0

Note—Tank wagon prices are those applicable to consumers purchasing lots of 100 or more gallons in one delivery.

New York and New England

SOCONY-VACUUM CO., INC.

	Gasoline: Tank wagon	Service station	Incl'ds tax of	Kero. tank wagon
Albany, N. Y...	13.5	13.5	4.0	8.5
Met. New York.	16.5	17.5	4.0	8.5
Buffalo	16.5	16.5	4.0	9.0
Rochester	13.5	13.5	4.0	8.5
Syracuse	16.5	16.5	4.0	9.25
Boston, Mass. .	15.0	16.0	4.0	8.5
Portland, Me. .	17.0	18.0	5.0	8.75
Manch't'r, N.H.	14.5	14.5	5.0	9.0
Burlington, Vt..	18.5	19.5	5.0	6.75

Ohio

STANDARD OIL CO. OF OHIO

	Gasoline: Tank wagon	Service station	Incl'ds tax of	Kero. tank wagon
Ohio points ...	15.0	17.0	5.0	*12.5

*Includes state tax of 1 cent, effective July 21.

Canada*

IMPERIAL OIL, LTD.
Imperial 3-Star Gasoline

	Gasoline: Tank wagon	Service station	Incl'ds tax of	Kero. tank wagon
Hamilton, Ont..	†21.0	23.5	6.0	17.5
Toronto, Ont...	†21.0	23.5	6.0	17.5
Brandon, Man..	30.3	33.3	7.0	21.5
Winnipeg, Man.	28.7	31.7	7.0	20.3
Regina, Sask...	29.0	32.0	6.0	21.5
Saskatoon, Sask.	31.8	34.8	6.0	24.3
Edmonton, Alta.	31.2	34.2	6.0	23.7
Calgary, Alta..	28.5	31.5	6.0	21.0
Vancouver, B.C.	†28.0	30.0	7.0	24.0
Montreal, Que..	24.0	27.0	6.0	17.0
St. John, N.B..	26.0	30.0	5.0	21.5
Halifax, N.S. ..	26.0	30.0	8.0	21.0

Imperial gallon used in Canada. †Governed by service station price.

Maritime provinces, all deals 4 cents off service station price. All other provinces open dealers 2.5 cents off service station price and 1 cent additional to 100 per cent accounts.

Retail Price Changes

Regular-Grade Gasoline and Kerosene

Standard Oil Co. of Nebraska, October 24, reduced tank wagon gasoline 1.4 cents in Omaha, Norfolk and North Platte. October 24, reduced tank wagon gasoline 1.4 cents and station gasoline 0.4 cent in McCook. October 24, reduced tank wagon gasoline 1.2 cents in Scottsbluff.

Standard Oil Co. of New Jersey, October 18, reduced station gasoline one-half cent in Atlantic City; further reduced it one-half cent October 19, one-half cent October 20, and one-half cent October 22; October 22, reduced tank wagon gasoline one-half cent. October 18, reduced station gasoline 1 cent in Newark; October 20, reduced it one-half cent further; October 22, reduced tank wagon and station gasoline one-half cent; October, 23, reduced them one-half cent further. October 15, reduced station gasoline one-half cent in Baltimore; October 18, reduced it one-half cent further; October 23, reduced tank wagon and station gasoline one-half cent. October 17, advanced station gasoline 1 cent in Cumberland. October 13, reduced station gasoline one-half cent in Washington; October 16, reduced it 0.8 cent further; October 22, reduced tank wagon gasoline 0.7 cent and station gasoline one-half cent; October 23, reduced station gasoline one-half cent. October 20, reduced station gasoline 3 cents in Petersburg; October 21, reduced tank wagon and station gasoline 0.2 cent. October 22, reduced tank wagon and station gasoline one-half cent in Roanoke. October 18, reduced station gasoline one-half cent in Hickory. October 16, reduced station gasoline one-half cent in Raleigh. October 19, reduced tank wagon and station gasoline one-half cent in Salisbury. October 17, reduced station gasoline one-half cent in Spartanburg.

Standard Oil Co. of Louisiana, October 13, reduced station gasoline 1 cent in Chattanooga; October 14, reduced tank wagon gasoline 1.5 cents and station gasoline one-half cent. October 13, reduced tank wagon and station gasoline one-half cent in Knoxville; October 14, reduced tank wagon gasoline 0.7 cent and station gasoline 1.2 cents. October 13, reduced tank wagon and station gasoline one-half cent in Memphis; October 14, reduced station gasoline one-half cent further. October 13, reduced tank wagon and station gasoline 1 cent in Nashville; October 15, reduced station gasoline one-half cent further. October 13, advanced tank wagon gasoline 1 cent in Bristol; October 13, reduced tank wagon and station gasoline 1 cent; October 14, reduced them 1 cent further.

(Continued on Page 32)

CRUDE OIL PRICE CHANGES

Effective October 25, Kanotex Refining Co. and Globe Oil & Refining Co. posted a lower price schedule in fields in which they purchase crude oil in Kansas and Oklahoma. Beginning with 40 cents for crude below 30 gravity they add 2 cents for each additional degree up to 40 degrees and over, at 62 cents.

NEWS FOR SALES DEPARTMENTS

Labor Policy Board Asked to Define An Oil Employe

WASHINGTON, D. C., Oct. 29.—Two public hearings have been called by the Petroleum Labor Policy Board, one for November 7, to consider a proper definition of the term "employe" as used in the labor provisions of the petroleum code, and the second, called for November 8, to consider exempting operators in localities with populations of 2,500 or less from the minimum wage and maximum hour provisions of the code.

The definition of "employe" as now defined and interpreted by the Labor Policy Board holds that employes in lease and agency filling stations, and other similar stations, are employes of the company supplying the station. The interpretation placed on this term by the board says: "The term employe as herein used shall be construed to include all employes, regardless of the nature of their duties, and means all persons working at filling and service stations where the refiner, distributor, jobber, wholesaler, or retailer, either (1) company owned, operated on salary and/or commission, or sales contract basis, or (2) holds the station under lease and operates on salary and/or commission basis, or sales contract."

This interpretation has confused both members of the industry as well as employes, and the industry alleges that it places an unjust burden on them and does not properly define the term "employe." The counter interpretation offered by the labor sub-committee and the marketing sub-committee of the Planning and Coordination Committee is "An employe is one who performs work, labor and services for, and subject to the direction and control of another.

"All persons working at a filling or service station, or at any garage or other institution selling petroleum products to the public, the performance of whose services is subject to the control and direction of the supplier of the petroleum products sold there, or who receive their wages, salary, or commission from the supplier, shall be deemed to be employes of the supplier.

"When however, a filling or service station is operated under (a) lease and agency agreements, (b) lease and license agreements, (c) lease and sales contract agreements, or (d) an independent contractor arrangement which gives the supplier no right to control wages or hours of labor of those working at the station, the person operating such station and the employes of such person shall not be considered employes of the supplier."

The other hearing to consider the question of exempting enterprises in communities of 2,500 populations or less, from the wage and hour provisions of the code, is a question which the National Recovery Administration put into effect several months ago. At that time, Administrator Ickes did not consider the Petroleum Code affected by the Executive Orders issued under the National Industrial Recovery Act for industries generally. This will be discussed at this meeting, and a definite decision reached as to whether the petroleum industry should inaugurate this practice.

RELEASE EDUCATIONAL FILM

An educational sound film showing the performance qualities of Ethyl gas entitled "Where Performance Counts" is being produced by Wilding Picture Productions, Inc., Detroit, for the Ethyl Gasoline Corp.

The picture, which will be released about November 1, shows improved car performance with ethylized fuel. While it is technical in nature it has a high entertainment value and brings out the qualities of speed, hill climbing and acceleration. Included in the picture are scenes from the Cleveland air races, recent motor boat races and other sporting events.

The picture also includes glimpses of technical and laboratory work. It is particularly designed for schools and educational purposes.

REVENUE CLAUSE AMENDED

The following amendment of Article 7, Regulations 46 of the Revenue Act of 1932, has been announced by the Commissioner of Internal Revenue of the Treasury Department:

Aritcle 7 of Regulations 46, approved June 18, 1932, as amended by Treasury Decision 4,398, approved October 24, 1933, is amended so that Paragraphs 2 and 3 under the caption "Registration" shall read as follows:

"Every person qualifying as a manufacturer of articles taxable under Title 4, or as a vendee with an established place of business reselling direct to manufacturers of taxable articles, will be granted a registration certificate on Form 637, upon application to the collector for his district, except manufacturers of articles enumerated in Section 604, relating to the tax on furs.

"Collectors of internal revenue are hereby authorized to assign registration numbers to all manufacturers located in their districts (except manufacturers of articles enumerated in Section 604, relating to the tax on furs) who have filed returns under the Revenue Act of 1932 covering articles subject to tax under these regulations."

Aviation Progress Depends Upon Higher Octane Fuels

Within reasonable limits, the power that can be developed from a supercharged aircraft engine is approximately proportional to the octane number of the available fuel. Today 87 octane number represents the highest quality commercial fuel, the octane number scale being the international measure of antiknock value in gasoline.

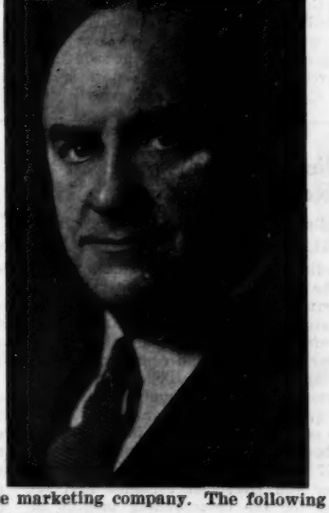
With plans under way for a transpacific air service from California to the Orient, American oil companies have intensified research on commercial production of aviation fuels of extremely high antiknock quality, according to Dr. Graham Edgar, vice-president of the Ethyl Gasoline Corp., owned jointly by the Standard Oil Co. of New Jersey and General Motors Corp. Gasoline of 87 octane value is absolutely indispensible today for aircraft use, and it is believed that the 100 octane experimental fuels now made in small quantities will be a necessity in the near future.

For several years American aircraft fuel has been the best in the world, but European nations are making rapid strides, and co-operative research by the oil refiner and the engine builder must be continued if this country is to hold its present favorable position.

"It is a matter of record, however, that in 1928 the cruising speed of passenger planes was about 100 miles an hour, while today 180 to 200 miles an hour is common. Several factors have contributed to this increase in engine power made possible by the use of antiknock fuels. Six years ago much of the aviation gasoline sold was only of about 50 octane number. The fast transport ship of today, with engines supercharged to require 87 octane number, could not get off the ground with such fuel."

Dr. Edgar's figures indicate that in 1933 aviation fuel consumption reached an all-time high of 67,000,000 gallons, a large proportion of it being fuel of standardized high antiknock value. The rapid growth of flying is forcibly driven home by his figures, showing that in 1926 less than a million gallons were consumed by transport companies' scheduled flights, while the army, navy and coast guard used about 4,000,000 gallons. In 1926 American air lines carried 5,782 passengers, 433,649 pounds of air mail, and 6,467 pounds of express, compared with 550,000 passengers, 7,655,000 pounds of air mail, and 1,660,000 pounds of express in 1933.

Edgar A. Holbein » » »



THE early sales experience of Edgar A. Holbein, director of the Standard Oil Co. of New Jersey in charge of domestic wholesale sales, consisted in securing customers who were interested in stoves, lamps, heaters and other oil devices. This was back at the turn of the century, shortly after he had become an employe of the sales division of the Standard of New Jersey at Baltimore, Md. In 1901 he was placed in charge of the sale of these devices in the Baltimore division.

Later his scope of activities widened to include gasoline and lubricating oils and he was made assistant manager of the division, and in 1919 he became general manager. He continued in this capacity until 1926 when he was transferred to the New York offices, where he became one of the domestic sales managers of the marketing company. The following year he was made a director of the company.

Last year, when the domestic operations of the Standard Oil Co. of New Jersey and its affiliated marketing units were reorganized by the parent company, Mr. Holbein was placed in charge of all wholesale sales, with headquarters at 26 Broadway, New York City. His department now has general charge of all wholesale sales in the United States for all the Standard of New Jersey companies with the exception of the Humble Oil & Refining Co. in Texas.

September Is Fourth Month of California Tax Decline

Continuing a decline begun last June, the California gasoline tax for September amounted to $3,157,674.39 or $161,328.50 less than the same tax for the corresponding month of 1933. The figure is also below that of August 1934, the decline being $221,349.65. This decrease in gasoline consumption as revealed by tax collections has continued throughout the summer months. The usual fall and winter drop experienced in most states is not anticipated, however, because of the slight seasonal effect in that state. The following list includes oil companies reporting sales of 1,000,000 gallons or more.

Name—	Gallons actually sold	Net taxable gallonage
Associated Oil Co.	16,975,312	8,752,439
Caminol Co., Ltd.	1,987,961	2,003,101
General Pet. Corp.	18,196,661	7,667,791
Macmillan Pet. Corp.	1,922,828	1,941,749
Western Oil & Ref.	1,718,860	1,731,731
Hancock Oil Co.	2,379,409	2,328,758
Richfield Oil Co.	13,004,455	8,406,074.8
Mohawk Pet. Co.	1,479,668	1,262,271
Norwalk Co.	1,641,997	632,145
Olympic Ref. Co.	1,068,674.5	1,038,910
Rio Grande Oil Co.	2,372,504	1,980,257
Sunset Pacific Oil	1,813,191	1,248,724
Seaside Oil Co.	2,132,497	1,062,235
Shell Oil Co.	27,768,203	11,650,993
Standard Oil Co.	37,622,404	21,330,480.3
Texas Co.	15,282,198	4,533,189.2
Union Oil Co.	18,520,224	12,725,071.3
Wilshire Oil Co.	4,403,425	4,436,917.1

PLAN DIRECT RAILROAD SALES

The Socony-Vacuum Oil Co. announces the organization of a railroad division to handle sales of railroad lubricants and greases. With offices in New York and Chicago, this new department will make more fully available the national engineering services of the company to the American railroads using its products.

AUGUST PANAMA CANAL TRADE

The following amount of oil passed through the Panama Canal during the month of August, 1934, as reported in the cargo declarations showing the movement by directions, in the United States intercoastal trade and in the total traffic. The figures are for tons of 2,240 pounds.

UNITED STATES INTERCOASTAL

	Atlantic to Pacific	Pacific to Atlantic
Crude oil	...	11,874
Gas and fuel	5,733	209,794
Gasoline, benzine and naphtha	8,000	108,068
Kerosene	....	.....
Lub oils and greases	4,630	620

TOTAL FOR ALL TRADE ROUTES, INCLUDING U. S. INTERCOASTAL

	Atlantic to Pacific	Pacific to Atlantic
Crude oil	362	182,769
Gas and fuel	38,490	231,008
Gasoline, benzine and naphtha	8,376	130,600
Kerosene	3,614	3,154
Lub oils and greases	17,619	700

NEWS FOR PETROLEUM REFINERS

Standard of California to Build Solvent Plant

LOS ANGELES, Calif., Oct. 29.—The Standard Oil Co. of California has completed tentative plans for the construction of a new solvent unit at its Richmond refinery and unless some unforeseen delay is encountered construction work should get under way within the next 30 days. The company's new lub oil plant will cost in the neighborhood of $500,000 and should be in operation early next spring. No details regarding the type of plant to be erected or the solvent process to be used is available at the present time.

REGROUP EAST TEXAS PLANTS

A redefinition of Texas as a gasoline refining district so as to set up the East Texas area as a distinct subsection of the district, has been announced by the Oil Administration.

The committee and the board felt that the redefinition would be helpful in maintaining an equitable division of gasoline production quotas within the district and would make possible a more accurate check on refining operations in East Texas.

Heretofore, the state of Texas has formed Refining Region No. 5, divided into Subdistricts A and B, with the East Texas Field part of Subdistrict A. Under the order just announced by the Oil Administrator, the East Texas area is formed into Subdistrict C, consisting of the following counties: Anderson, Cherokee, Gregg, Harrison, Panola, Rusk, Smith, Upshur and Wood.

Subdistrict A now consists of all Texas except the Gulf Coast and East Texas. Subdistrict B, the Gulf Coast area, is redefined to include the following counties: Orange, Jefferson, Hardin, Liberty, Chambers, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Austin, Colorado, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy and Cameron.

SECOND DERBY SUIT

NEW YORK,, Oct. 27.—Infringement of five patents is charged in a second suit filed by Universal Oil Products Co. against the Derby Oil & Refining Corp., which operates a refinery at Wichita, Kans.

The suit was filed October 2 in the U. S. District Court at Newark, N. J. The patents alleged to be infringed are Nos. 1,488,325, 1,890,974, 1,820,057, 1,891,199, and 1,793443.

This action followed by a few days the filing of another suit which charged the infringement of patent No. 1,392,629, the Dubbs clean circulation patent, which was upheld last spring by Federal Judge John P. Nields in deciding a suit brought by Universal against Root Refining Co.

NEW MOTOR OIL ANNOUNCED

Marketing of new solvent-refined Cycol Motor Oil in 1 and 5-quart cans, effective immediately, was announced today by P. E. Allan, domestic sales manager of Associated Oil Co. New Cycol is the first branded western motor oil to be marketed in cans, according to Mr. Allan.

COUTTS REFINERY REOPENS

COUTTS, Alberta, October 27. — The local plant of the British-American Oil Co. resumed operations last week after a three-week' shutdown for pre-winter overhauling. Some minor alternations were made and new refining equipment added.

Standard Oil Company of Indiana Adopts New Method for Dispensing Grease

The Standard Oil Co. of Indiana is now marketing grease throughout its territory packed in cartridges, together with a new type of grease gun to "shoot" them.

Cartridging of grease is a distinct innovation. The old type of grease gun was filled laboriously and messily from cans and drums. The formation of air pockets and the inclusion of dirt was almost unavoidable. To fill the new type the operator merely slips in a factory-loaded cartridge of the desired lubricant. After using the required amount from any cartridge he can remove it from the gun and substitute another. Each cartridge can be used again later, and repeatedly until it is empty. In this way a single gun serves for a full greasing operation involving use of the several different lubricants which are required for proper lubrication of the modern automobile, and a minimum of time and trouble will be devoted to loading and unloading.

The new kind of equipment has been developed and perfected in the course of the last few years by Lubrication Corp., a concern owned jointly by Standard Oil Co. of Indiana and the Bendix Aviation Corp. Standard has developed on its part new formulas for lubricants specially suited to cartridge packing and application. Lubrication Corp. holds patents covering cartridges and gun.

Marketing of the gun-cartridge combination was started tentatively over a year ago but discontinued when it was ruled under the oil code that oil companies could not sell any type of equipment for handling petroleum products. The code was later changed and now permits certain types of such marketing.

Each unit consists of the gun and six cartridges of different lubricants, packed in a handy case. This outfit furnishes everything necessary for complete specialized lubrication service. Cartridges have a sliding bottom which acts as a plunger to feed lubricant into a high compression chamber in the nose of the gun. Cartridges work equally well with fluid transmission oil or stiff water pump grease. They are, of course, interchangeable. The cost of the cartridges is only slightly greater than that of usual grease containers. Although cartridges cannot be refilled, additional cartridges can be obtained at Standard bulk stations in quantities as required.

It is expected that the new equipment will mark an important step forward in automotive lubrication. Units are proving especially popular with garage owners, operators of truck and bus fleets, and others who undertake to service their own vehicles. For the first time, the owner of a few cars or machines requiring lubrication can completely equip himself for such work at a moderate cost. They are also showing considerable popularity with dealer stations which do not have potential volume of lubrication business to justify purchase of power equipment or complete sets of specialized grease guns.

"Standix" is the appropriate name applied to gun and cartridges, indicative in itself of the combined backing of Standard and Bendix.

Strong selling points claimed for the cartridge are that it will:

Display and merchandise the lubricants, taking advantage of the current trend toward package selling.

Prevent substitution of inferior products.

Prevent contamination of lubricants with dirt, air and other foreign substances.

Eliminate waste of lubricant and make it easy to keep equipment clean.

Materially reduce time and effort necessary to fill guns.

Enable commercial users to build up effective specialized lubrication service with a minimum of investment and help sell service to customers.

The cartridges so far produced are of 1-pound capacity. Larger cartridges have been tried successfully on an experimental basis and will be marketed if demand for them develops.

Billion Dollars Worth of Refinery Products in 1933

Refiners in the United States turned out $1,378,838,372 in products in 1933, according to preliminary figures issued by the federal bureau of census of the department of commerce. The report also stated that wage-earner employment in refineries increased slightly during the spring and fall and considerably during the summer of 1933. The figures reported for the final months of the several quarters of the year show 59,024 wage earners on the pay rolls in March, 60,768 in June, 69,317 in September, and 70,757 in December. Employment in September and December exceeded that reported for the corrsponding months in 1931, the last preceding census year, and the average for 1933, 69,055, is slightly higher than the average for 1931, 68,824.

The value of products totaling $1,378,838,372 in 1933 (f.o.b. refinery prices), compares with $1,524,284,997 reported for 1931 (the last preceding census year) and $2,639,665,001 for 1929.

The petroleum refining industry, as defined for census purposes, is confined to establishments engaged in refining crude petroleum, and consequently does not cover plants engaged in compounding refined or partially refined petroleum products or in producing natural gasoline (casinghead gasoline) at the wells.

The petroleum refining industry, as defined for census purposes, is confined to establishments engaged in refining crude petroleum, and consequently does not cover plants engaged in compounding refined or partially refined petroleum products or in producing natural gasoline (casinghead gasoline) at the wells.

Statistics for 1933, with comparative figures for earlier years, are given in the following tables. All figures for 1933 are preliminary and subject to revision.

WAGE EARNERS, BY QUARTERS, 1933, 1931 AND 1929

(The figure given for the final month of each quarter is the total number of wage earners on the pay rolls for the week including the fifteenth day of the month, or for some other representative week in the month.)

Census year	March	June	Sept.	Dec.
1933	59,024	60,768	69,317	70,757
1931	72,019	68,715	66,614	65,594
1929	77,063	82,662	82,969	82,571

Galey and Couty Installing First Refinery in District

Thomas M. Galey and Donald R. Couty, operators in the shallow oil fields of western Kentucky, have purchased the skimming plant formerly operated by the Home Refining Co., Nowata, Okla., and are moving it to Fordsville, Ky., where it will be reassembled. The plant, with a daily capacity of 250 bbls., is expected to be in operation by January 1, 1935. It will be the first skimming plant in the field which embraces Ohio, Daviess and Hancock Counties, Kentucky.

Mr. Galey and George Stewart opened the Fordsville Pool last June, and 50 strings of tools are running in the field at the present time. Mr. Couty, joint owner of the skimming plant with Mr. Galey, opened up the Lanhan heirs gas field in Ohio County, Kentucky, and has oil interests in that district. They will operate the refinery on their own crude.

BUILD TWO DUBBS UNITS

CHICAGO, Oct. 29. — Two Dubbs cracking units are under construction at the Petit-Couronne refinery of La Societe Anonyme des Petroles Jupiter, near Rouen, France.

One unit is to crack heavy oil and the other is for reforming. The former will have a charging capacity of about 4,200 bbls. per day and will operate on the selective two-coil cracking principle.

The reforming unit will have a charging capacity of about 2,380 bbls. per day and will be used to improve the octane number of the straight-run gasoline.

The charging stock for both units will be Iraq crude, delivered through the newly finished pipe line. The two cracking units are expected to be put in service early next spring.

AUGUST IMPORTS AND EXPORTS

The following statistics of imports and exports of petroleum and its products for the month of August, 1934, are taken from the report of the U. S. Department of Commerce. The major foreign movements are listed.

Exports	Bbls.
Crude oil	3,695,956
Natural gasoline	192,142
Gasoline, bulk	1,657,586
Gasoline, containers	108,524
Ill. oil, bulk	880,630
Ill. oil, containers	95,363
Gas oil	689,105
Fuel oil	1,200,460
Lubricating oil	587,651
	Pounds
Lubricating greases	7,744,950
Paraffin wax, unrefined	7,581,877
Paraffin wax, refined	7,714,346
Imports	Bbls.
Crude oil	2,169,302
Fuel oil	497,159
Unfinished distillate	50,502

REPUBLIC ADDS EQUIPMENT

HOUSTON, Tex., Oct. 27. — Republic Oil Refining Co. is starting construction on the installation of a gas recovery plant at its refinery at Texas City. The plant will have a capacity of 3,000,000 feet of gas daily. Equipment is being furnished by Burrell-Mase through the Frick-Reid Supply Corp.

ANOTHER MICHIGAN PLANT

MUSKEGON, Mich., Oct. 29. — Construction of a second independent refining plant in St. Louis, Mich., about 10 miles west of the big Porter Pool, has been started by the McClanahan Oil Refining Co., on a 40-acre tract on the banks of the Pine River.

E. G. Guy, former superintendent of the Old Dutch refinery in Muskegon and of the Roosevelt refinery in Mount Pleasant, is in charge of construction. Mr. Guy came to Michigan several years ago from Wichita Falls, Tex.

MAKE YOUR CHOICE

in any of 4 METALS TO MEET A "STEP UP" IN . . .

Step up pressure or temperature and you "step up" corrosive and erosive action on metals. Or the refinery product handled itself may be excessively corrosive. It is necessary to have always available the *correct* product in the metal best suited for the job. Crane Co. therefore offers the products below in *any one of the four metals listed* so that you may select your metal on the basis of (1) pressure and temperature and (2) corrosive action. At your request, Crane engineers will advise you on specific requirements out of knowledge gained in years of refinery work.

- **PRESSURE**
- **TEMPERATURE**

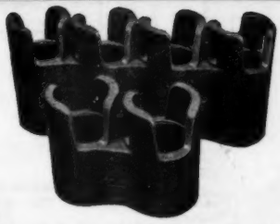
and resistance to

- **CORROSION**

CARBON CAST STEEL • CARBON MOLYBDENUM CAST STEEL

NICKEL CHROME ALLOY CAST STEEL • CHROME MOLYBDENUM CAST STEEL

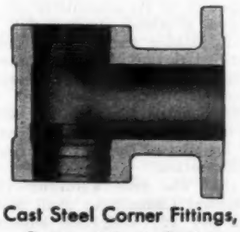
Screwed Back Outlet Cast Steel Return Bend



Two-Hole and Multiple Hole Box Header, Back Outlet

Flanged End Still Return Bend for High Pressure and High Temperature

Cast Steel Gate Valve



Cast Steel Corner Fittings, Screwed Back Outlet

Two-Hole Back Outlet Box Header

Expansion Bend with Steel Gate Valve and Elbow

Back Outlet Corner Fittings

Cast Steel Tee

CRANE

CRANE CO., GENERAL OFFICES: 836 S. MICHIGAN AVE., CHICAGO, ILL., NEW YORK: 23 W. 44TH ST.
Branches and Sales Offices in One Hundred and Sixty Cities

Cast Steel Return Bend

VALVES, FITTINGS, FABRICATED PIPE, PUMPS, HEATING AND PLUMBING MATERIAL

NATURAL GASOLINE MANUFACTURE

Northwestern Utilities Available Gas Reserves

EDMONTON, Alberta, Oct. 27.—In connection with a new issue of 6 per cent first mortgage bonds for the purpose of retiring a 7 per cent issue, some information has been made public as to the available gas reserves of Northwestern Utilities, Ltd., which supplies natural gas to Edmonton.

The company has a 20-year franchise for Edmonton, dating from November 16, 1915, subject to renewal in perpetuity for successive five-year periods with a right of purchase by the city at the end of each period. It distributes not merely to Edmonton but also to a number of smaller communities on the 75-mile transmission line from the Viking Field.

The company's production is chiefly from its own wells in the Viking Field, supplemented by gas from two wells drilled by the Hudson's Bay Oil & Gas Co. The Vicking fields had an estimated original content of 60,000,000,000 feet and cover a proven area of at least 27 square miles.

The company in 1924 had a daily open flow capacity of 48,000,000 feet from 10 wells. By 1931 this had increased to 110,600,000 feet from 22 wells. In that period rock pressure dropped from 735 to 607 pounds. In a report dated March 14, 1913, covering the company's available gas reserves, Ralph E. Davis reported the Viking Field gas reserves sufficient for more than 15 years' operation. The Kinsella Field, recently explored by the company, he believes to be larger than the Viking Field. Including the Kinsella Field, he estimates the gas reserves proven and available as sufficient for more than 30 years.

The original main transmission line from the Viking Field to Edmonton has been duplicated for approximately 35 miles and the company is planning to ultimately duplicate the entire 75 miles. To connect the Kinsella Field with the Viking Field will require ultimately about 12 miles of pipe line.

START MICHIGAN PLANT

The Apex Gasoline Co., recently organized by James C. Graves of Saginaw and Charles Maguire of Mount Pleasant, and associates, has started construction of a new $100,000 casinghead gas plant in Section 17, Porter Township, Midland County, the heart of Michigan's largest oil field.

Fourteen miles of 6-inch welded pipe will be laid from the plant to the Dow Chemical Co. plant at Midland which will handle the dry gas. Casinghead gasoline probably will be marketed through the Roosevelt Refining Co. of Mount Pleasant, of which Mr. Maguire is president.

James Hutton is general superintendent and C. G. Daniel is in charge of pipe line construction. Pipe has been ordered and is expected to arrive this week. A five-unit plant will be erected and enlarged, depending upon the supply of gas. Three and four-inch gathering lines will be laid, the gas to be carried by vacuum pressure. Contracts for casinghead gas have been closed with a majority of Porter Township operators.

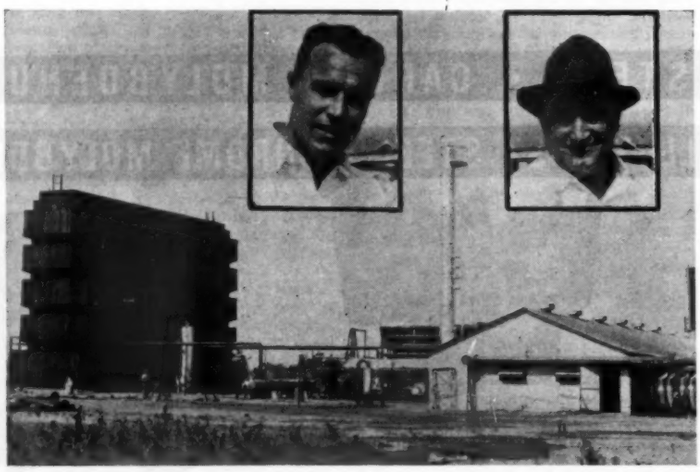
ADDS COMMITTEE PERSONNEL

The Planning and Coordination Committee has announced the addition of three new members to the natural gasoline subcommittee "J." The new men are: W. K. Warren, Warren Petroleum Co., Tulsa; Frank Chase, Lone Star Gas Co., Dallas, Tex., and Sidney Smith, Shell Petroleum Corp., Tulsa.

New Sabine Valley Plant Will Process Gas From 1000 East Texas Wells

The Sabine Valley Gasoline Co., Inc., has been organized by J. B. Beaird and R. C. Ratcliffe of Shreveport to construct twelve 230-horsepower compressor units. The plant will have a capacity of 15,000,000 feet daily and will be located just south of the Sabine River, in the Mary Scott Survey, Gregg County. It will serve 1,000 producing wells already contracted by the company. Ninety miles of pipe, varying from 20-inch on down to 2-inch, will be laid to gather gas and return the residue to the leases for repressuring purposes when this is desired. Five miles of gasoline line will be laid from the plant to the Hercules Gasoline Co., Inc.'s loading rack at Kilgore, this plant also being owned by the above named parties. E. E. DeBack is general superintendent for the two companies and L. J. Dale is field superintendent.

The Hercules plant at Kilgore has been increased by four 165-horsepower Bessemer units, bringing the plant up to eight units having a daily capacity of 7,500,000 feet. This plant has been in operation since last February and the company intends to increase the capacity by eight more units, four of which are to be installed in the near future. A new 1,500-gallon per minute Fluor cooling tower and other auxiliary equipment has been installed at the plant, and the entire gathering system is to be revamped and enlarged. It is located on the Gulf Production Co.'s Angus Spear lease just west of Kilgore.



This view of the 8,000,000 cu. ft. capacity plant of the Hercules Gasoline Co. Inc., at Kilgore, Texas, shows the new Fluor cooling tower just completed. In the insert, left to right are E. E. DeBack, general superintendent and L. J. Dale, field superintendent of the company

More Than 1,500 Attend Sinclair's Celebration

All expectations for success at the Sinclair-Prairie barbecue at Shidler, Okla. October 22, were exceeded when 1,500 executives, employes and friends of the company joined in celebrating the safety record made recently in the Shidler-Burbank Field. The celebration, under the direction of Henry W. Boggess, started with a program in the high school auditorium.

William H. Connelly, chairman of the board of directors of the Sinclair-Prairie Oil Co., was present to participate in this program honoring the men who set the million-man-hour record of no injuries.

Other high company officials present included Dana H. Kelsey, Allen Whiteside, W. W. Baker, W. A. Martin, C. A. McNamara, E. W. Hocker, O. E. Dougherty, J. A. Wolfe, J. A. Carroll, S. C. Phillips, H. M. Coulson and Henry W. Boggess, director of safety, who organized the Shidler-Burbank safety chapter several years ago.

Special guests included J. E. Flanagan, Texas Co.; H. N. Blakeslee, Dallas, director of safety for the American Petroleum Institute; R. S. Huffman, personnel director, Oklahoma Natural Gas Corp.; E. D. Murphy and Jack Savage of the Mid-Continent Petroleum Corp.

John W. Stoker and L. M. Kelsey, superintendents of the production and gasoline departments for Sinclair-Prairie in the Shidler-Burbank district; Logan Scott, chairman of the local safety committee, and the 120 men employed in the two departments were those whose meritorious record in safety work and accident prevention was the cause for celebration.

The formal program began at 5 p. m., with Harry E. Fulton, a veteran worker, introducing D. J. Wallace, assistant to Boggess and former director of safety for the Mid-Continent Oil and Gas Association, as chairman of the meeting. Wallace in turn introduced the company officials and those participating in the program, and paid high compliment to Boggess for his success in building up and directing the farflung safety work of the Sinclair-Prairie organization.

When it came his time to speak, Boggess passed the tribute on to Stoker, Kelsey, Scott and the men in the field.

Amendment to Liquefied Gas Code Made Necessary

An amendment to the code of fair competition for the liquified gas industry was approved October 5, 1934. The substance of the change follows:

Modify Article 5, Section 5, by deleting and substituting in lieu thereof the following:

Section 5. (1) It being found necessary in order to support the administration of this code and to maintain the standards of fair competition established hereunder and to effectuate the policy of the act, the code authority (Emergency National Committee) is authorized;

(a) To incur such reasonable obligations as are necessary and proper for the foregoing purposes, and to meet such obligations out of funds which may be raised as hereinafter provided and which shall be held in trust for the purposes of the code;

(b) To submit to the National Industrial Recovery Board for its approval, subject to such notice and opportunity to be heard as it may deem necessary (1) an itemized budget of its estimated expenses for the foregoing purposes, and (2) an equitable basis upon which the funds necessary to support such budget shall be contributed by members of the industry;

(c) After such budget and basis of contribution have been approved by the National Industrial Recovery Board, to determine and obtain equitable contribution as above set forth by all members of the industry, and to that end, if necessary, to institute legal proceedings therefor in its own name.

(2) Each member of the industry shall pay his or its equitable contribution to the expenses of the maintenance of the code authority (Emergency National Committee) determined as hereinabove provided, and subject to rules and regulations pertaining thereto issued by the National Industrial Recovery Board. Only members of the industry complying with the code and contributing to the expenses of its administration as hereinabove provided, unless duly exempted from making such contribution, shall be entitled to participate in the selection of members of the code authority (Emergency National Committee) or to receive benefits of any of its voluntary activities or to make use of any emblem or insignia of the National Recovery Administration.

(3) The code authority (Emergency National Committee) shall neither incur nor pay any obligation substantially in excess of the amount thereof as estimated in its approved budget, and shall in no event exceed the total amount contained in the approved budget, except upon approval of the National Industrial Recovery Board; and no subsequent budget shall contain any deficiency item for expenditures in excess of prior budget estimates except those which the National Industrial Recovery Board shall have so approved.

PHILLIPS OFFICIALS HURT

Harry A. Trower, vice president in charge of sales, and R. M. Riggins, comptroller, of Phillips Petroleum Co., Mrs. Trower and Mrs. Riggins are in Joplin, Mo., hospitals after an accident in which an automobile in which they were riding collided with a motortrain. The crash occurred at 5:30 p. m., Sunday.

Mr. Trower has been associated with the Phillips company for 15 years. Mr. Riggins was secretary-treasurer of the Independent Petroleum Co., in Tulsa until 1930, and joined the Phillips firm as comptroller.

Heat From Diesel Exhaust Gas Has Many Uses at Pump Stations

By L. G. E. BIGNELL
Petroleum Engineering Editor

Utilization of the heat in exhaust gases from internal combustion engines has afforded engineers opportunity to devise many pieces of equipment principally taking the form of heaters. Some have tried to use the gas direct for heating buildings, others have passed the gas through water heaters and then have found many uses for the hot water. The heat of combustion in the modern Diesel engine varies from 900° to 1,100° F. Part of this heat is absorbed by the cooling water that is circulated around the engine cylinders. Additional heat is taken up by the water jacket on the exhaust manifolds so that the temperature of the gas that may be utilized in the heater is about 475° F. The discharge temperature of the gas from the heater is about 300° F.

The maximum temperatures of gas passing through exhaust heaters is about 700° F. although in some installations somewhat higher temperatures may be found. The usual temperatures of gas from the four-cycle type of iDesel engine is from 600° to 650° F., the variation being due to whether the "dry" or "water-cooled" type of exhaust manifold is used. In two-cycle type engines the exhaust does not exceed 500° F. very frequently.

There is a practical limit below which it is not desirable that the gas in a waste heat boiler may be cooled, to avoid condensation, particularly of sulphur-bearing gases that would cause excessive corrosion of the heating surfaces over which the gas passes. The liberation of carbon monoxide from the cylinders of the Diesel engines also makes the maintenance of temperatures in excess of 250° F. for the gas that is discharged from the hot water heater very desirable. To be on the safe side, most operators prefer to have the exhaust gas temperature about 300° F. as it leaves the heater.

Two Views of Construction

This condition has caused the designers to take two views of heater construction. One type of heater is designed to pass the exhaust gases through the bank of tubes surrounded by the water to be heated. The other type heater passes the water through the inside of the tubes and the gas through the shell of the heater and around the outside of the tubes.

The first type of heater is composed of a vertical steel shell that is fitted with flanged heads on each end. Inside of the shell two plates are welded that are drilled to receive a number of one-half inch steel tubes. These tubes are expanded into the sheets much the same as the flues in a boiler are fitted into the crown sheets.

The water to be heated surrounds these tubes and the fluid level is controlled by a Mercoid float set outside of the shell but so attached to it by inlet and discharge pipes that the upper predetermined level of the water in the shell of the heater is maintained. Three pet cocks in the shell of the heater permit the testing for water level. The heater is insulated and provided with a pop valve that will permit steam to escape to the atmosphere when the internal pressure gets too high.

In this type of heater the flow of exhaust gas is through the tubes.

The other type of heater in which the gas passes around the outside of the tubes the general design is much the same as in the heater just described. One main change is in the use of a concave cone bottom above which is fitted a removable plate to catch precipitates.

The principal difference between the two heaters is the water chamber. In the second type the water is fed into the heater at a point near the bottom of the shell by gravity from a tank elevated upon tower in the station yard. In the other type heater the water is forced into the heater with a small centrifugal pump.

The exhaust gas is conducted into the shell of the heater through a connection on one side near the bottom of the gas chamber in the heater. The gas is diverted upward by means of a plate that is fitted between the tubes and extends to the bottom of the shell but leaves a space of about 1 foot open at the top. The gas passes up and over this first plate and is then deflected downward by a second plate that is attached to the upper shell and extends downward to near the bottom of the shell. Passing under this plate the gas again turns upward and escapes through the pipe attached near the top of the heater shell on the side opposite to the inlet.

With either type of exhaust heater the exhaust gas from one or more Diesel engines leaves the building by their individual exhaust pipes and discharge into a common header or manifold that is buried in the ground, and sealed at one end. If it is desired to permit the gas to escape directly to the atmosphere from any one of these engine exhausts a two-way butterfly valve set in the upright exhaust pipe is opened and the gas passes to the muffler for the individual engine and then to the air.

If it is desired that any portion of this exhaust gas pass through the heater the butterfly valve is closed in the engine exhaust and this diverts the gas into the common manifold and from this manifold into the exhaust heater.

Heat Available

The quantity of thermal units (B.t.u.) recoverable per hour from the exhaust gases of an internal combustion engine may be estimated by the following formula, according to "The Diesel Engineering Handbook," seventh edition, recently published:

$$Q = \frac{\text{B.h.p.} \times C \times D}{4}$$

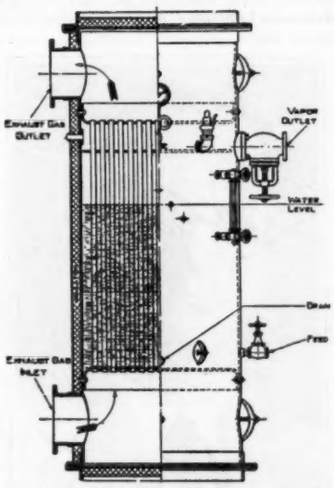
B.h.p. is brake horsepower of engine.
C is a constant (for four-cycle engines, 12, and for two-cycle engines, 20).
D is the drop in temperature of the gases in passing through the heater expressed in degrees F.

More heat may be recovered in the form of hot water than in the form of steam, because when steam is generated the temperature of the gases leaving the boiler will be higher than when simply heating the water to boiling point or 212° F.

If the boiler is designed to discharge steam at 100° F. the temperature of the steam would be about 338° F. and the exhaust gas temperature could not be less than 100° F. If hot water at 0° gauge pressure is discharged it would have a temperature of 212° F. permitting the escaping gases to be lowered to the 300° F. limit set by temperature at which carbon monoxide and sulphur compounds may be precipitated and cause corrosion. At five-pound gauge pressure on the heater the escaping steam would have a temperature of about 228° F. or about 110° F. less than when discharging steam at 100-pound pressure which indicates clearly the economy of using relatively low pressure steam or hot water produced by exhaust gases from Diesel engines if any substantial quantity of hot water or steam is needed.

Uses of Hot Water

There are several uses to which the hot water from the exhaust heaters may be put. Heating the pump station is one of the most important but that is only necessary during the winter months. It is during this period of the



Exhaust gas boiler of fire tube type

year that the minimum quantity of exhaust gas high enough in temperature to be used successfully in the heater is available.

During the summer period the Diesel engines run at nearly full load and it has been found that from three-fourths to full load will give the exhaust gases their highest temperatures. Between three-fourths and full load about 31 per cent of the original heat in the exhaust gas is available for delivery to the heater. Running on half load the heat available amounts to only about 24 per cent.

During the summer time the oil passing through the line is warmer and the temperature of the cooling water that passes around the engine cylinders is also higher. The heat in the exhaust gases is therefore higher and if it were needed in larger quantities during the summer months it would be available. But the reverse is the case for it is in the winter when heat is really needed.

The cooler oil in the pipe line passes through the heat exchangers that deliver the cooling water to the cylinders on the Diesels and as a consequence the exhaust gases are lower in temperature and there is not as much gas heat available for the heater when it is most needed.

With the engines running at less than three-fourths load during the winter months when a lesser quantity of oil is handled through the pipe lines the cooler water delivered to the cylinders will reduce gas temperatures and the result is a lesser amount of heat remains for the heaters.

It has been suggested that in as much as the Diesel cooling water serves to keep the engines running economically at 130° F. during the summer under nearly full load operating conditions it may be possible to increase the cooling water temperature during the winter months and in that way deliver higher temperature gas to the heater when most needed.

It may also be possible to permit the gas passing through the manifold on the exhaust lines from the engines to enter the gathering line at higher temperature by reducing the amount of cooling water circulated around the manifold and instead of removing 200° of heat from the gas there to permit a portion of this heat to pass on over to the heaters.

Other Uses

In addition to using the water from the exhaust heaters for radiators heating the pump station hot water is needed to heat the lubricating oil before it is passed through the centrifugal pumps for cleaning. This provided an all the year requirement for hot water.

Every pipe line pump station uses a considerable quantity of rags for wiping the machinery. Only clean rags are suitable for such purposes and the prices vary from 9 to 12 cents per pound and it is a conservative estimate to place the quantity needed for each station each month at 100 pounds. If this quantity had to be supplied to each of the 15 to 20 stations along the trunk lines of the transcontinental it forms a considerable item of expense.

When hot water is available it is possible to reduce the rag expense materially by washing soiled rags in washing machines that cost about $60 to $75 each and with a little cleaning compound will prepare the rags for reuse at a very considerable saving in expenses.

Jacket Type Heater

At stations where it is not necessary to provide steam or hot water for heating the building, it is always desirable to heat the lubricating oil before it goes to the centrifugal separators, where another type of heater may be used.

At one main line pump station, Diesel powered, the exhaust from the engine cylinders passes direct to a pipe with an outside diameter of approximately 8⅝ inches. This exhaust pipe passes through the wall of the building and into the usual type muffler and then to the atmosphere.

Over that portion of the 8-inch pipe within the building a joint of 12-inch pipe is welded. This outside pipe is provided with a Smith Brothers "wrinkle" joint in the center to take care of expansion and contraction, but the 8-inch inside exhaust pipe is not equipped with expansion joint.

The circulating water in the system is pumped from a central pump or "hot well" with sufficient pressure to permit it to be forced into the space between the 12-inch jacket pipe and the 8-inch exhaust pipe and retained there long enough to be heated to about 220° F. or the temperature of steam at about 3-pound pressure. This heater is provided with a relief valve that pops off at about 3-pound pressure.

This boiling water is used for heating the oil that is circulated through heat exchangers and brings its temperature up to about 180° F. before it goes to the centrifugal. The cleaned oil is returned to the individual reservoir for the particular Diesel engine from which the dirty lubricating oil was taken.

In this system the water from the heat exchangers is returned to the circulating water system and pumped back to the Diesel water jackets by centrifugal pumps.

Late Fields

OKLAHOMA

The Stanolind Oil & Gas Co. has purchased Jack Shaffer's half interest in an 80-acre and a 60-acre tract in the John Fitts Pool, in Pontotoc County. The consideration was not given out but it was part cash and part deferred payments over a period of 10 years. The property includes a half interest in the W half SW Section 30-2n-7e, on which there are two gas wells, one doing 100,000,000 feet at a total depth of 2,293 feet, and the second well which did 1,883 bbls. of oil in 10 hours from the bromide sand. The deal also included a half interest in the SW SE and S half NW SE Section 25-2n-6e, known as the Susan Norris farm. The No. 1 Susan Norris, in the SE NW SE Section 25, had the bromide at 4,035-4,249 feet, total depth, and on Tuesday started producing, flowing 205 bbls. the first hour.

Magnolia Petroleum Co.'s No. 1 Craddock, SE cor. Section 24-2-6, Fitts Pool, flowed at the rate of 20 bbls. per hour on Monday after an acid treatment in a pay bottomed at 4,507 feet. It had been drilled to 4,528 feet where it got salt water, and was then plugged back.

Phillips Petroleum Co.'s No. 2, C SW SE NW Section 22-7-4, in the South St. Louis Field in Pottawatomie County, pumped 1,204 bbls. in 48 hours from dolomite at 4,173-4,222 feet.

Helmerich & Payne and others' No. 1-A, C NE SE Section 3-8-4, Pottawatomie County, made 375 bbls. in 7 hours and 652 bbls. in 16 hours, pinched in during the last 9 hours. It had been acidized at 4,050-67 feet, in dolomite.

KANSAS

Stanolind Oil & Gas Co.'s test in C SW SW NE Section 16-26-4w, southeastern Reno County, Kansas, had Viola lime at 4,083 feet, Wilcox sand at 4,093 feet, Siliceous lime at 4,196-98 feet, total depth, with no oil showing in the lower formations. The crew was rigging up standard tools and will plug back to the Viola lime and give it a thorough test.

PURCHASING AGENT DIES

John C. Long, Jr., aged 34 years, purchasing agent of the Shell Petroleum Corp., fatally wounded himself with a shotgun in his home in Tulsa on Tuesday. He had been in ill health. He is survived by a widow, two daughters, a mother and two brothers.

RETAIL PRICE CHANGES

(Continued from Page 26)

Atlantic Refining Co., October 20, reduced station gasoline 1 cent in Philadelphia; October 22, reduced tank wagon and station gasoline 1 cent; October 24, reduced them one-half cent further; October 26, reduced tank wagon gasoline one-fourth cent and station gasoline 1 cent. October 20, reduced tank wagon gasoline one-half cent and station gasoline 1.5 cents in Pittsburgh; October 24, reduced tank wagon and station gasoline 1 cent; October 25, reduced tank wagon gasoline one-fourth cent and station gasoline 1 cent. October 23, reduced tank wagon gasoline one-fourth cent and station gasoline one-half cent in Allentown, Erie, Scranton, Altoona, Dover and Wilmington. October 20, reduced tank wagon gasoline 1 cent and station gasoline 1.5 cents in New Haven; October 23, reduced tank wagon one-fourth cent and station gasoline one-half cent.

Magnolia Petroleum Co., October 26, reduced tank wagon and station gasoline 3 cents in Texarkana. October 27, advanced tank wagon and station gasoline 1 cent in Houston. October 29, advanced tank wagon and station gasoline 7 cents in Dallas and Fort Worth. October 25, reduced tank wagon kerosene 1 cent in Fort Worth.

Standard Oil Co. of Ohio, October 13, reduced tank wagon and station gasoline one-half cent throughout Ohio.

Administrator's Report on Crude Stocks

Stocks of domestic and foreign crude petroleum at the close of the week ended October 20 totaled 331,981,000 bbls., a decrease of 837,000 bbls. from the total of 332,818,000 bbls. on hand at the end of the preceding week, Harold L. Ickes, Secretary of the Interior and administrator of the Code of Fair Competition for the Petroleum Industry, announced today. This decrease, which followed a decline of 693,000 bbls. during the previous week, comprised a decrease of 942,000 bbls. in domestic crude stocks and a gain of 105,000 bbls. in foreign stocks.

According to current reports of the industry for the week ended October 20, in comparison with those for the previous week, daily average crude production declined approximately 40,000 bbls., daily average imports decreased 35,000 bbls., but the daily average withdrawal from stocks was approximately 20,000 bbls. higher. The net decrease of about 55,000 bbls. in daily average new supply was balanced by an increase of 60,000 bbls. in daily average crude runs to stills and a material decline in daily average exports, fuel and losses. The approximate daily average of crude oil during the week ended October 20 was as follows (bbls.): Production, 2,480,000; imports, 62,000; decrease in stocks, 120,000; equals runs to stills, 2,495,000; exports, losses, etc., 167,000.

CRUDE PETROLEUM STOCKS REPORTED BY COMPANIES HOLDING 100,000 BBLS. OR MORE

Grade of crude oil	Stocks held by reporting companies Oct. 13, 1934 (Bbls.)	Oct. 20, 1934 (Bbls.)	Change from Oct. 13, 1934 (Bbls.)
Total domestic crude	330,090,000	329,148,000	—942,000
Foreign crude	2,728,000	2,833,000	+105,000
Total crude	332,818,000	331,981,000	—837,000
Pennsylvania grade	4,620,000	4,628,000	+ 8,000
Other Appalachian	1,156,000	1,165,000	+ 9,000
Lima-N.E. Indiana-Michigan	1,456,000	1,432,000	— 24,000
Illinois-S.W. Indiana	11,415,000	11,412,000	— 3,000
N. Louisiana and Arkansas	10,159,000	10,059,000	—100,000
West Texas and S.E. New Mexico	30,254,000	30,067,000	—187,000
East Texas	33,512,000	33,084,000	—428,000
Other Mid-Continent	157,402,000	157,091,000	—311,000
Gulf Coast	18,360,000	18,304,000	— 56,000
Rocky Mountain	27,746,000	27,697,000	— 49,000
California	34,010,000	34,209,000	+199,000

Joseph B. Elam Dies After Short Illness

SHREVEPORT, La., Oct. 27.—Joseph Barton Elam, executive secretary of the Arkansas-Louisiana division of the Mid-Continent Oil and Gas Association, died at his home in Shreveport, on Friday, October 26. The funeral was held this afternoon. Services were held at the family home, the Rev. James M. Owens, rector of St. Mark's Episcopal Church, officiating, assisted by the Rev. W. E. Van, rector of Christ Memorial Episcopal Church. The body was taken to Mansfield, La., for burial.

JOSEPH B. ELAM

Deceased is surivived by Mrs. Elam and four children, Joseph Barton Elam, Jr.,and Jonetta, Mary Stewart and Margaret; two sisters, Mrs. J. H. Sutherland, Oklahoma City, Okla., and Mrs. B. A. Williams, Dallas, Tex., and Mrs. C. W. Elam, a sister-in-law, of Mansfield, La.

Mr. Elam was born June 1, 1878, in Mansfield, La. He was the son of Congressman J. B. Elam and Mrs. Mary Stewart Elam. After graduating at Tewanee College he founded and edited the Mansfield Progress, which later merged with the Mansfield Enterprise in which Mr. Elam was actively interested at the time of his death. His newspaper work took him into many places, including Chicago, St. Louis and Oklahoma City.

Mr. Elam was elected mayor of Mansfield and served two terms. While in office he was elected president of the Louisiana State Mayors Association. He was at one time chairman of the DeSoto Parish Democratic Executive Committee and a member-at-large of the State Democratic Committee.

When the Louisiana-Arkansas division of the Mid-Continent Oil and Gas Association was formed, Mr. Elam was appointed as its first executive secretary with offices in Shreveport.

Well Known by Oil Men

Mr. Elam was widely known in national oil circles and was well versed in all phases of the industry. His work on the NRA code as a regional code committeeman was recognized nationally.

Active pallbearers were J. R. Crawford, Frank Constant, John McWilliams Ford, Leon C. Grosjean of Shreveport, and Gordon Hewitt and F. A. Leaming of Mansfied.

Developments Crowding Each Other in Group 3

(Continued from Page 22)

have shown a little softening tendency in the last week perhaps if it had not been for the East Texas developments. A few scattered lots were reported looking for buyers in various districts. These seem to have been picked up and this week the market was reported as firm, with prices showing an upward trend. The export and coastwise business is of much smaller volme than that of last year.

Kerosene was looking better. Refiners were reported to be pretty well sold up and instead of considering price shading they were disposed to mark up their material. Many Oklahoma refiners were said to be slow to quote on low-gravity kerosene until the East Texas situation should be cleared up more definitely.

Gas oils and distillates were stronger, with prices higher. Advent of colder weather in various parts of the country was helping the furnace oils. Little change was observable in the fuels.

Wax continued strong. Bright stocks underwent a 1-cent drop in price throughout. Steam-refined stocks were inactive, but prices were fairly steady. Neutrals were in satisfactory position, with demand steady.

L. D. Hilton Transferred to Houston Headquarters

L. D. (Lew) Hilton, who has represented the Cameron Iron Works in Oklahoma and Kansas for the past two years,

L. D. HILTON

has been transferred to the Houston, Tex., headquarters of the company. Mr. Hilton started his oil field career in the early days of oil development in California. In 1908 he became production superintendent for the Rice Ranch Oil Co. at Santa Maria, Calif. From 1909 to 1916 he served as field superintendent for the Bard Oil & Asphalt Co., at Ventura, Calif. From 1916 to 1920 he was superintendent for the Pan American Petroleum Co. at Ventura. From 1920 to 1924 he served as superintendent of drilling and production for a syndicate of companies engaged in townlot drilling at Long Beach, Huntington Beach and Santa Fe Springs. During this period he also managed a drilling contracting concern in which he was interested, in addition to serving a term as commissioner for the State operating with and for the operators and the oil division of the State Mining Bureau. In 1924 he went to Colorado and undertook several drilling projects of his own. During the years 1926 to 1928, inclusive, he served as sales manager for the Regan Forge & Engineering Co. in the Mid-Continent fields, and during 1929 and 1930 managed the sales of oil specialties of his own design. Late in 1930 he joined the sales staff of the Cameron Iron Works and has been associated with the company since then.

J. W. CLARK DIES

SHREVEPORT, La., Oct. 29.—James W. Clark, 56, independent oil operator in the Mid-Continent fields for 30 years, died in a local sanitarium. He originally was connected with the Sun Oil Co. and later was a member of Clark & Greer Drilling Co. He operated extensively in the Pine Island, Caddo, Homer, Bull Bayou, and Crichton Fields in North Louisiana, and in the El Dorado, Arkansas, and East Texas Field.

MAGNETIC STORM

The Tucson, Ariz., observatory of the U. S. Coast & Geodetic Survey reports a moderate magnetic storm started October 23 at 3 p.m. (C.S.T.) and ended October 27 at 8 a.m. (C.S.T.). Telegrams follow:

'Storm began twenty-third. Twenty-one. Moderate."

"Storm ended twenty-seventh. Fourteen."

NEW TEXAS ALLOWABLE

AUSTIN, Tex., Oct. 30.—New Texas state oil allowables for November were set by the Railroad Commission Tuesday, aggregating 953,995 bbls. daily for the State including 407,000 bbls. for the East Texas Field.

Adopt Standard Testing and Rating Procedure

(Continued from Page 10)

of all equipment and accessories that were installed for the test.

(d) It shall be noted on the sheet that the curves are corrected to 29.92" mercury barometer reading and temperature of 60° F.

(e) These curves are to be designated as standard net power unit curves.

(f) Rating for intermittent maximum or variable load.

The engine manufacturer shall guarantee that the engine in actual service shall be capable of an output of at least 90 per cent of that shown on the standard net power unit curve.

A deduction of 3 per cent of the power shown on the standard net power unit curve shall be made for each 1,000 feet rise in altitude above sea level.

A deduction of 1 per cent of the power shown on the standard net power curve shall be made for each 10° rise in temperature above 60° F.

(g) Rating for continuous load.

The engine manufacturer shall recommend that the continuous load on the engine shall not exceed 80 per cent of that shown on the standard net power unit curve.

This 80 per cent rating can be used for altitudes up to 3,000 feet above sea level. Above 3,000 feet, however, a deduction of 3 per cent of the power shown on the standard net power unit curve is to be made for each additional 1,000 feet above 3,000.

A deduction of 1 per cent of the power shown on the standard net power unit curve shall be made for each 10° rise in temperature above 60° F.

3. Bulletins and specification sheets.

Power curves appearing in bulletins, specification sheets or other forms of literature shall carry a statement to the effect that they are drawn up in accordance with the specifications and standards established by the Internal Combustion Engine Institute.

4. Example.

The following example has been worked out in connection with a 100-horsepower standard power unit for intermittent maximum or variable load, and continuous load in order to more clearly define the testing and rating procedure covered in Paragraph 2 hereof.

100 HORSEPOWER STANDARD POWER UNIT

For Intermittent Maximum or Variable Load

Altitude above sea level (feet)—	Temperature (F.)	Standard net power unit (H.P.)	Correction for intermittent maximum or variable load	Correction for temperature	Correction for altitude	Total correction	Horsepower rating
0	80°	100	—10	—2	0	—12	88
3,000	80°	100	—10	—2	—9	—21	79
6,000	80°	100	—10	—2	—18	—30	70

For Continuous Load

Altitude above sea level (feet)—	Temperature (F.)	Standard net power unit (H.P.)	Correction for continuous load	Correction for temperature	Correction for altitude	Total correction	Horsepower rating
0	80°	100	—20	—2	0	—22	78
3,000	80°	100	—20	—2	0	—22	78
4,000	80°	100	—20	—2	—3	—25	75
6,000	80°	100	—20	—2	—9	—31	69

N.B.—The above example gives the results obtained without making any change in the manufacturer's standard compression ratio.

Crude Oil Prices

(Continued from Page 25)

Effective September 20 in Salt Flat by Shell Petroleum Corp.

Rocky Mountain States

Iles, light (Sept. 29, 1933)	$.96
Iles, heavy (Sept. 29, 1933)	.90
Florence, Colo. (June 17, 1933)	.80
Fort Collins and Wellington, Colo. (June 17) .....(See Salt Creek prices)	
Big Muddy (Sept. 29, 1933)	1.01
Frannie, light (May 1, 1934)	.70
Frannie, heavy (Sept. 29, 1933)	.62
Salt Creek and LaBarge (Sept. 9, 1933) See Stanolind Mid-Continent price schedule	
Grass Creek, light (Sept. 29, 1933)	1.18
Grass Creek, heavy (Dec. 15, 1932)	.45
Elk Basin (Sept. 29, 1933)	1.18
Rock Creek (Sept. 29, 1933)	1.02
Dutton Creek (July 8, 1933) .....See Mid-Continent gravity prices	
Lance Creek (Dec. 16, 1932)	.92
Poison Spider (Mar. 5, 1931)	.70
Hudson (June 2, 1931)	.65
Lander (Mar. 5, 1931)	.40
Rex Lake (Feb. 22, 1930)	1.10
Osage	1.08
Lost Soldier (Sept. 30, 1933)	.88
Hamilton Dome:	
Below 18° (July 1, 1934)	.52
18° and above (July 1, 1934)	.62
Torchlight (Sept. 29, 1933)	1.18
Greybull (Sept. 29, 1933)	1.18
Pondera	1.15
Sunburst (Sept. 29, 1933)	1.35
Cat Creek, Montana	1.07
Hogback (Sept. 29, 1933)	1.11
Lea County, N. Mex. (Sept. 29, 1933)	.75
Maljamar (Sept. 29, 1933)	.70
Artesia-Jackson (Dec. 1, 1933)*	.75

Note—Salt Creek, Torchlight, Elk Basin Grass Creek, Frannie, Greybull, Hogback and Iles by Stanolind Oil & Gas Co. Elk Basin, Grass Creek light, Big Muddy, Rock Creek and Sunburst by Ohio Oil Co. Lost Soldier posted by Producers & Refiners Corp. Artesia, Jackson and Maljamar posted by Continental Oil Co. Lea County, effective September 29, 1933, by Humble Oil & Refining Co. and other buyers; Fort Collins, Wellington, Orchard, Florence, Big Muddy, Cat Creek, Rattlesnake and Table Mesa by Continental Oil Co. Osage posted by Arro. Hamilton Dome, Wyo., by Stanolind Oil & Gas Co.

*Continental Oil Co.

North Louisiana and Arkansas

Smackover, Ark. (all grades)	$.70
Tullos, Urania, La. (Jan. 13, 1934)	.87
Nevada, Ark. (Sept. 29, 1933)	.60
East El Dorado (Sept. 29, 1933)	.75
Converse, La. (Mar. 17, 1934)	1.03
Elm Grove, La. (Sept. 29, 1933)	.75
Holly, La. (Nov. 17, 1934)	1.03
Pleasant Hill, La. (Mar. 17, 1934)	1.03
Zwolle, La. (Mar. 17, 1934)	1.03
Champagnolia, Ark. (Mar. 17, 1934)	.81
Lisbon, Ark. (Mar. 17, 1934)	1.03
Stephens, Ark. (Sept. 29, 1933)	.70
Urbana, Ark. (Mar. 17, 1934)	.66
Other fields .....(See gravity table)	

Note—Smackover: Effective September 29, 1933, Texas Co., Magnolia Petroleum Co., Standard of Louisiana, Louisiana Oil Refining Corp., Gulf Refining Co. and Phillips Petroleum Co. East El Dorado posted by Magnolia Petroleum Co. and Gulf Refining Co., Nevada by Standard Oil Co. of Louisiana. Urbana posted by H. L. Hunt, Inc., and Louisiana Oil Refining Co. Converse, Holly, Zwolle and Urbana by Standard Oil Co. of Louisiana; Elm Grove by Simmons Oil & Refining Co.; Pleasant Hill by Standard Oil Co. and Magnolia Petroleum Co.; Champagnolie by Standard Oil Co. and Lion Oil & Refining Co.

Eastern States

TIDE WATER PIPE CO.
(Effective May 1, 1934)

Bradford, Pa.	$2.55
Allegheny, N. Y.	2.55

SOUTH PENN OIL CO.
(Effective May 1, 1934)

Pennsylvania Grade Oil in National Transit Lines (Bradford Field)	$2.55
Pennsylvania Grade Oil in Southwest Pennsylvania Lines	2.32
Pennsylvania Grade Oil in Eureka Pipe Line lines	2.17
Pennsylvania Grade Oil in Buckeye Pipe Line lines	2.07
Corning Grade Oil in Buckeye Pipe Line Co.'s lines (Oct. 2, 1933)	1.33

PENNZOIL CO.
(Effective May 1, 1934)

Pennsylvania Grade Oil in National Transit Lines:	
Group A Includes Cochran, Franklin, Hamilton and Doolittle districts.	$2.47
Group B Includes Titusville district.	2.46
Group C Includes Turkey and Tidioute districts.	2.45
Group D Includes Bear Creek and Porkey districts.	2.44
Group E Includes Eldeneau, Bull Creek, Rough Run, Carbon, Dipner, Bredin, McJunkin, Jameson, Kennerdell, Emlenton, Tiona, Lacey and Kinzua districts.	2.43

Price depends on length of pipe line haul to plant at Oil City.

PURE OIL CO.
(Effective May 1, 1934)

Cabin Creek, W. Va.	$2.17
Bradford Hollow, W. Va.	2.17
Kelly Creek, W. Va.	2.17

CREW-LEVICK CO.

Oil City-Titusville	$2.47

Middle Western States

OHIO OIL CO.
(Effective September 29, 1933)

Lima	$1.30
Illinois (Jan. 5, 1934)	1.13
Princeton, Ind. (Jan. 5, 1934)	1.13
Plymouth	Shut in
Western Kentucky (May 26, 1934)	1.06
Midland, Mich. (Sept. 30, 1933)*	1.03
Oceana, Mich. (Oct. 5, 1933)	.90
Somerset, Ky. (Sept. 30, 1933)	1.23

*Posted by Pure Oil Co. Producers Pipe Line Co. pays 5 cents per barrel over Pure Oil Co.'s posted price. Somerset, Ky., crude purchased by Ashland Refining Co., Ashland, Ky., and posted price includes premium. Oceana posted by Old Dutch Refining Co. and Naph-Sol Refining Co.

Canada

Ontario (September 9, 1933):	
Petrolia*	$2.10
Oil Springs	2.17
Turner Valley (May 21, 1934):†	
Clear naphtha	$2.53
Discolored naphtha	2.37
Crude oil, 50 gravity	2.12
Crude oil, 45 to 49.9	2.07
Crude oil, 40 to 44.9	1.50

*Imperial Oil, Ltd. †Imperial Oil, Ltd., and Regal Oil & Refining Co.

Mexico

Panuco*	$0.90

*F.o.b. ship, based on August transactions and exclusive of production and export taxes and bar dues.

California Crude Oil Prices

STANDARD OIL CO. OF CALIFORNIA

(Effective September 6, 1933)

For current purchases of crude oil at the well (unless otherwise specified). (All gravities above those quoted take highest price offered in that field.)

Gravity—	Long Beach	Seal Beach, Alamitos Heights	Huntington Beach	Inglewood	Playa del Rey	Olinda, Brea Canyon	Athens-Rosecrans	Torrance	Richfield	Whittier, La Habra	Montebello	Santa Fe Springs	La Habra-Coyote	Midway-Sunset, Elk Hills, Buena Vista Hills	Lost Hills	Coalinga	Coyote
14-14.9	$.65	$.65	$.65	$.65	$.65	$.65	....	$.65	$.65	$.65	$.65	....	$.65	$.57	$.57	$.57	$.65
15-15.9	.65	.65	.69	.66	.66	.69	....	.66	.65	.65	.65	....	.65	....	....	....	.65
16-16.9	.66	.66	.72	.72	.69	.72	....	.69	.67	.68	.65	....	.65	....	....	....	.65
17-17.9	.69	.66	.75	.76	.72	.76	....	.72	.70	.71	.65	....	.68	....	....	....	.68
18-18.9	.72	.66	.78	.80	.76	.79	....	.75	.74	.74	.65	....	.71	.61	.61	.59	.71
19-19.9	.76	.66	.81	.83	.80	.82	....	.78	.78	.78	.65	....	.74	.64	.65	.63	.74
20-20.9	.78	.68	.83	.87	.83	.85	....	.81	.82	.81	.66	....	.78	.67	.69	.66	.78
21-21.9	.81	.72	.86	.90	.87	.88	....	.83	.85	.84	.69	$.72	.81	.70	.72	.68	.81
22-22.9	.84	.76	.89	.94	.90	.92	....	.85	.89	.87	.72	.76	.84	.73	.76	.72	.84
23-23.9	.88	.81	.92	.97	.94	.95	$.83	.89	.92	.90	.76	.79	.87	.77	.79	.75	.87
24-24.9	.91	.85	.95	1.01	.97	.98	.86	.92	.97	.93	.80	.83	.90	.81	.82	.78	.90
25-25.9	.94	.89	.98	....	1.00	1.01	.90	.95	1.00	....	.85	.87	.93	.85	.85	.81	.93
26-26.9	.97	.93	1.01	....	1.04	1.04	.94	.98	1.04	....	.89	.90	.96	.89	.88	....	.96
27-27.9	1.00	.98	1.04	....	....	1.07	.97	....	1.08	....	....	.94	.99	.93	.91	....	.99
28-28.9	1.03	1.03	1.07	....	....	1.10	1.01	....	1.11	....	....	.98	1.02	.97	.94	....	1.02
29-29.9	1.06	1.05	1.09	....	....	....	1.04	....	1.15	....	....	1.01	1.05	1.01	.97	....	1.06
30-30.9	1.09	1.10	1.12	....	....	....	1.08	....	....	....	....	1.05	1.09	1.05	1.00	....	1.09
31-31.9	....	....	....	....	....	....	1.12	....	....	....	....	1.08	1.12	1.09	....	....	1.12
32-32.9	....	....	....	....	....	....	1.16	....	....	....	....	1.12	1.15	1.13	....	....	1.15
33-33.9	....	....	....	....	....	....	....	....	....	....	....	1.16	1.18	1.17	....	....	1.18
34-34.9	....	....	....	....	....	....	....	....	....	....	....	1.19	1.21	....	....	....	1.21
35-35.9	....	....	....	....	....	....	....	....	....	....	....	1.23	....	....	....	....	....
36-36.9	....	....	....	....	....	....	....	....	....	....	....	1.26	....	....	....	....	....
37-37.9	....	....	....	....	....	....	....	....	....	....	....	1.30	....	....	....	....	....
38-38.9	....	....	....	....	....	....	....	....	....	....	....	1.34	....	....	....	....	....

Additional Standard Oil Quotations

Mountain View—Effective July 3, 1934, the following are the prices of the Standard Oil Co. of California for its current purchases of crude oil at the well in the Mountain View Field; 14 to 19.9 degrees, 57 cents; 20-20.9, 60 cents; 21-21.9, 59 cents; 22-22.9, 61 cents; 23-23.9, 63 cents; 24-24.9, 66 cents; 25-25.9, 69 cents; 26-26.9, 73 cents; 27-27.9, 76 cents; 28-28.9, 78 cents; 29-29.9, 81 cents; 30-30.9, 84 cents; 31-31.9, 87 cents; 32-32.9, 90 cents; 33 degrees and above, 93 cents.

Elwood Terrace—F.o.b. ship, 33 degrees, $1.03; 34 degrees, $1.06; 35-35.9, $1.09; 36-36.9, $1.12; 37 degrees and over, $1.15.

Newhall—14 degrees and over, 57 cents.

McKittrick and Kern River—14 degrees and over, 57 cents.

Wheeler Ridge—14 to 17.9 degrees, 57 cents; 18-18.9, 58 cents; 19-19.9, 61 cents; 20-20.9, 64 cents; 21-21.9, 67 cents; 22-22.9, 70 cents; 23-23.9, 73 cents; 24-24.9, 76 cents; 25 degrees and over, 79 cents.

Kettleman Hills—33-33.9 degrees, 93 cents; 34-34.9, 96 cents; 35-35.9, 99 cents; 36-36.9, $1.02; 37-37.9, $1.05; 38-38.9, $1.08; 39 degrees and over, $1.11.

The Texas Co. posted in Shiells Canyon, South Mountain and Santa Paula as follows: 14 to 17.9, 57 cents; 3 cents added for each degree up to and including 26-26.9 degrees at 84 cents; then 4 cents added for each degree up to and including 30 degrees and over at $1. Company posts Standard Oil Co.'s Montebello prices in Montebello and North Whittier, and posts Standard Oil Co. prices in Signal Hill, Alamitos Heights, Huntington Beach, Torrance, Richfield and Santa Fe Springs, all effective September 6.

General Petroleum Co. posts Standard Oil Co. prices in Athens, Rosecrans and Signal Hill; Alamitos Heights up to 26-26.9; Santa Fe Springs up to 25-25.9; Richfield up to 25-25.9; Brea Canyon and Olinda up to 25-25.9, and Torrance up to 25-25.9.

Union Oil Co., effective September 6, posts same price as Standard Oil Co. in all fields in which both purchase, excepting that in Athens-Rosecrans, Union Oil Co. posts 21-21.9, 72 cents, and 32-32.9, $1.18; 34-34.9, $1.21, and 35-35.9, $1.24.

Associated Oil Co., effective September 6, posted same prices for the same grades as Standard Oil Co. of California, excepting that in some fields its gravity scale stops as follows: Huntington Beach, 26 degrees and over; Seal Beach and Alamitos Heights, 26 degrees and over; Coyote Hills, 23 degrees and over; Richfield, 25 degrees and over; Torrance, 25 degrees and over; Inglewood, 24 degrees and over; Santa Fe Springs, 25 degrees and over; Midway-Sunset, Elk Hills, Buena Vista Hills, 30 degrees and over. Also Associated pays 53 cents for oil of 11 to 13.9 gravity in McKittrick, Kern Front, Kern River, Midway-Sunset, Elk Hills, Buena Vista Hills and Coalinga.

Modern Flood Methods Promise Large Reserve

(Continued from Page 14)

2,740 bbls. of water per 24-hour day, or at the rate of 80 gallons per minute. There are several artesian wells on the property, two of which have never ceased flowing even in the driest periods. In addition there is a deep well pump capable of delivering 300 gallons per minute. The water is treated in a Bovaird installation to avoid corrosion and clogging

Cook deepwell pump, capacity 300 gallons per minute, adds to the supply available from artesian wells on the lease. The water sand is reached at 300 feet

of sand face. Isolated water wells shown in the diagram refer to experimental work extending beyond the area under immediate development. In all cases the "units" are not vented centrally for oil production until a year or a year and a half from the introduction of water to the sand. This accounts for the greater number of water intake wells.

Pumping by Electricity

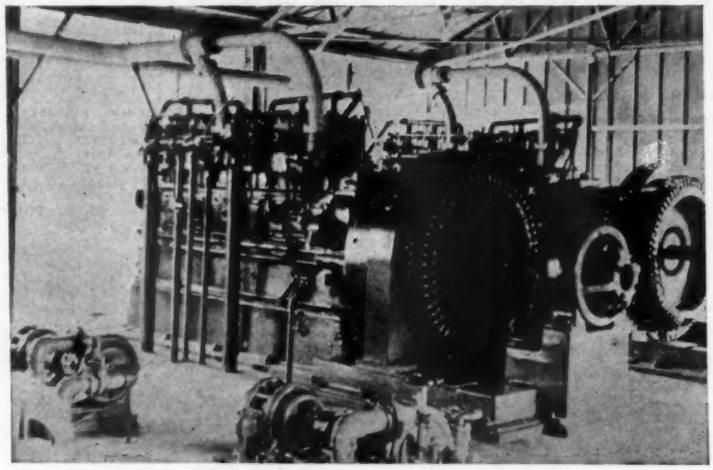
All of the oil wells are pumped by electrical equipment manufactured (with the exception of the electric motors) in the fully equipped lease shop. The cost of pumping, according to Mr. Page, is 0.7 cent per barrel of fluid taken from the oil vent well. The electricity, while produced at the lease power plant, could be purchased to give a similar cost figure, as indicated by checking this item with that of Rock City (Bradford Field) electric pumping. Referring to the lease shop and power plant in order: The shop produces the electrically operated pumping jacks at the rate of two a week. Purchased on the retail market the pumping units cost $400, and the neat rig an additional $45. The electricity used on the lease is generated by two 187 KVA dynamos turned by 180-horsepower Clark gas engines. Operation is on a 24-hour per day schedule.

Thousand Barrels a Day

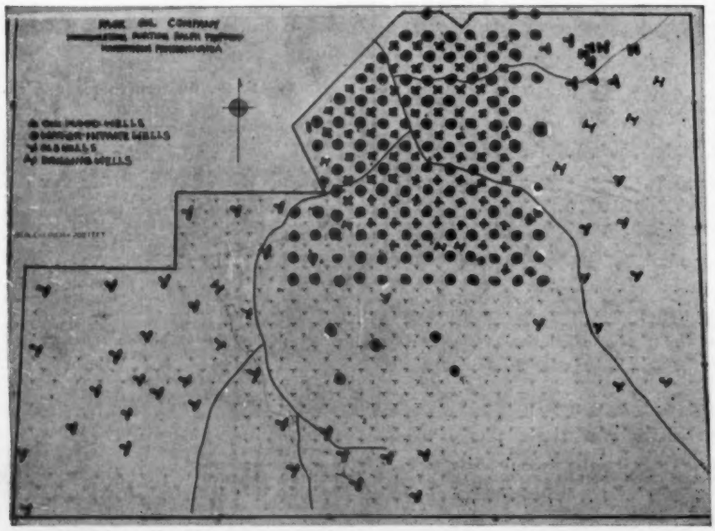
Production of 1,000 bbls. of oil a day can be reached with ease, according to Mr. Page, by drilling eight wells per month, and this output can be maintained thereafter by drilling only four additional wells per month. Production (peak) of 60 bbls. a day is not extraordinary on these properties, and several wells have exceeded this figure by a considerable margin. It must be taken into account, however, that higher production is related to thicker and more saturated sand than to varying texture here, as it has been noted that with the exception of a loose pebbly formation at the top of the paying formation, the sand throughout the lease tested by cores is uniform.

Water vs. Air

For whatever significance it may have, the opinion of several recognized geologists and petroleum engineers is given. It is their belief that waterflooding is applicable to a far greater area of the western Pennsylvania oil producing territory than is generally supposed. They point out that modern improvements in obtaining reliable cores and interpretations of them, in testing sands for volume (pressuring medium) and direction (broken or unbroken), and in packing off formations which disturb repressuring development with various types of packers, cement, aqua-gel, or other devices, eliminate many of the objections which narrowed the methods of secondary recovery down to the use of air and/or gas. Now that Bradford Field's leading operators are working the sands in the Middle District (Oil City-Titusville), it may be expected that waterflooding, if considered feasible by its best known practitioners, will be given a full opportunity to prove its worth south of Kane. Waterflood tests are under way at the other extreme of the district, Butler.



Gas driven dynamos supplying all of the electricity required to pump wells on the property. They are rated at 187 K.V.H. each; engines are 180 H.P.



One hundred and fifty acres in this northwestern section of the 5,300-acre lease of Olean Petroleum Co. is under intensive waterflood development as shown here. Water intake wells are indicated by circles; oil flood wells, by triangles; old wells, by lazy "T's", and drilling wells by "H's". Isolated tests for experimental purposes are also shown

Result of Engine Tests Using Various Lub Oils

(Continued from Page 13)

The only test results that are obviously inconsistent are those for Oil No. 1. These inconsistencies may be due to the fact that it was the first oil that was tested and the engine may have been stiff. Furthermore, the fuel consumption may have been high because Oil No. 1 was the lightest oil that was examined or because the seal may not have been good enough to keep the gasoline from escaping into the crankcase.

Summary and Conclusions

From the above results it is apparent that these tests have met with the same difficulties that other experimenters have encountered. The conditions in the engine and the manner of conducting the tests were controlled very carefully. This leaves only one conclusion: the service performance of an oil is greatly dependent on unavoidable differences in engine conditions and the performance cannot be accurately judged by the properties of the lubricating oil. Only one sure method of determining the value of an oil appears to be satisfactory, and that method is to test the oil in an egine.

The status of solvent refined oils is not clearly defined. One of the three solvent oils (No. 5) gave excellent results. Solvent Oil No. 4 also ranked high in the list but solvent Oil No. 6 was among the least suitable of the oils tested. This serves to indicate that solvent processed oils differ greatly and some are not equal to oils refined in the customary manner in service performance.

Perhaps the most useful conclusions that can be deduced from these tests is a comparison of the performance of each oil with the average performance of all of the oils.

REGARDING CARBON DEPOSITS

Average for all oils: 7.36 grams.

Three solvent oils:
- Two produced less carbon than average.
- One produced more carbon than average.

Five Mid-Continent oils:
- Four produced less carbon than average.
- One produced more carbon than average.

One Pennsylvania oil:
- Produced more carbon than average.

REGARDING OIL CONSUMPTION

Average for all oils: 46.3 per cent.

Three solvent oils:
- Two used more than the average.
- One used less than the average.

Five Mid-Continent oils:
- Three used less than the average.
- Two used more than the average.

One Pennsylvania oil:
- Used more than the average.

REGARDING GASOLINE CONSUMPTION

Average for all oils: 0.616 pound.

Three solvent oils:
- Two used less fuel than the average.
- One used more fuel than the average.

Four Mid-Continent oils:*
- One used less.
- One used the same.
- Two used more.

One Pennsylvania oil:
- Used more than average.

*Oil No. 1 thrown out because it was obviously in error.

REGARDING LUBRICATING VALUE

Average for all oils: 7.15 f.h.p. at 1,500 r.p.m.

Three solvent oils:
- Two higher friction than average.
- One lower friction than average.

Five Mid-Continent oils:
- Two lower friction than average.
- One same friction as average.
- Two higher friction than average.

One Pennsylvania oil:
- Higher friction than average.

This comparison is of the most general nature but it does serve to indicate the outstanding properties of the different classes of oils. Solvent oils are good or bad depending upon the kind of crude oil that was used in their manufacture and the particular solvent extraction process that was used. In general the Mid-Continent oils did not produce as much carbon and were not consumed as rapidly as the other oils. Only one Pennsylvania oil was examined and hence the results are not conclusive. Perhaps the poor showing of the one Pennsylvania oil may be accredited to the inferior qualities of this particular oil, and yet this oil is one that is advertised as a long-wearing oil.

Although physical tests of lubricating oils may be useful from a general standpoint, final judgment must be based on engine tests. A great deal of space has been devoted in the technical press during the past two years dealing with the manufacture of solvent oils and their desirability. While it is unquestionably true that high-grade lubricating oils can be produced by solvent processes from low grade or naphthenic crudes, the actual engine tests do not bear out the supposition that these lubricants so produced are superior in actual service in an automobile engine to oils produced from high-grade paraffin base Mid-Continent crudes by the processes now in use.

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CHICAGO STATIONS ADDED

Waggoner Service Stations, Inc., a leading independent seller in the Chicago area, has announced that effective October 20 it is marketing the products of Socony-Vacuum Oil Co., Inc. This concern, which includes some 34 stations, for the last several years has sold the products of another large major company.

DOES IT ALWAYS COME SAFELY OUT OF THE HOLE?

DO THE BLADES ALWAYS OPEN?

DO THE BLADES ALWAYS CLOSE?

DOES IT HELP IN STRAIGHTENING A CROOKED HOLE?

DOES IT AID IN CEMENTING?

WILL IT HELP BRING IN BIGGER, BETTER WELLS?

THE ANSWER IS "Yes"

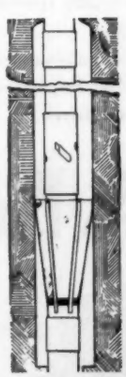
Running - in the hole with blades closed in body.

Blades cutting into formation as pumps and rotation start.

Blades fully expanded in cutting position.

1. *Yes*—thousands of runs, without failure, prove its safety.
2. *Yes*—blades open with pump pressure and cut their way out to full gage with ease.
3. *Yes*—the blades close downward and even if obstructed they close into body when they contact the casing shoe coming out of the hole.
4. *Yes*—by wall scraping a "bottle-neck" 20 to 50 feet up from bottom, or at any point in a well where it may be desirable to cement.
5. *Yes*—the unequalled expansion of the Baker Wall Scraper insures a good, wide shoulder for correcting deviated holes.
6. *Yes*—by scraping off plastered rotary mud and enlarging the area of producing sand.

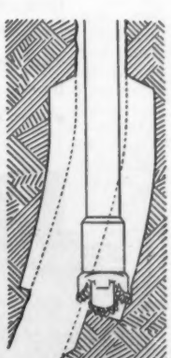
THERE are so many needs for this amazing "underreamer" that it can be used profitably in most every well. Performance records and complete specifications are listed in a Bulletin which we will send you upon request—or see pages 94 and 95 in your 1934 Composite Catalog.



"Bottle - necked" or a perfect C. P. cementing job.

Without "wall scraping" — no "bottle - neck" —a poor cement job.

A perfect scraped, "bottle - necked" cavity, ready for cementing.



"Wall scraping" a wide shoulder for straightening a crooked hole.

NRA WE DO OUR PART

BAKER OIL TOOLS, INC.

SEE OUR DESCRIPTIONS IN THE COMPOSITE CATALOG

P. O. BOX 609, HUNTINGTON PARK, CALIFORNIA

COALINGA ▲ TAFT ▲ HOUSTON ▲ OKLAHOMA CITY ▲ TULSA ▲ NEW YORK CITY

BAKER ROTARY WALL SCRAPER

BRIDGEPORT ..Drilling Mud SERVICE..

25 conveniently located stocks.
New points stocked as fields develop.

Every facility, developed by long experience, is utilized by us in supplying the most economical and efficient Drilling Mud Service known to the producing industry.

Major producing companies, independent operators and drilling contractors, who have used our Mud Service from the time Aquagel and Baroid were first introduced in the oil fields, have seen the usefulness of this service develop with the growing uses of drilling muds.

Many years of pioneering experience now enable us to supply an outstanding service in connection with the distribution of these products.

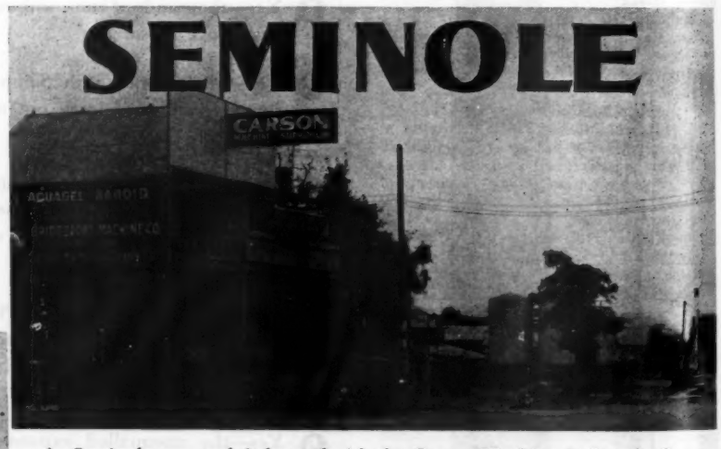
Mined and Processed in the Oil Fields

Handling expenses and transportation costs on drilling muds distributed by us for use in the Mid-Continent and Gulf Coast fields are negligible. Our Drilling Muds are mined and processed at raw material sources in the Mid-Continent, so that we have a short, inexpensive haul direct from the source of supply to our stocks.

TWO OF OUR EXCLUSIVE MUD STOCKS REPRESENTATIVE OF THOSE MAINTAINED BY US IN MANY ACTIVE FIELDS.

Devoting our facilities entirely to drilling mud requirements at these points, we supply a more competent mud service than can be obtained from any source not so highly specialized and less experienced in this technical service.

Our convenient and economical delivery service is augmented by the services of our experienced Drilling Mud Engineers, whose services are supplied gratis to drilling mud users.



At Seminole our stock is located with the Carson Machine & Supply Co.
—112 First Street—Phone 848.
DAY AND NIGHT SERVICE IS MAINTAINED

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GENERAL OFFICE—WICHITA, KANSAS

Fifth Completion in Sam Fordyce Field Proves to Be One of Best Producers in New Area

SAN ANTONIO, Tex., Oct. 29.—The Sam Fordyce Field, southwestern Hidalgo County, got its fifth producer during the week when Lucky-Blocker and Bishop completed No. 1 Francisco B. Guerra as one of the best wells to be completed in the area. The test cored gas sand from 2,722-42 feet, shale from 2,742-49 feet and saturated oil sand from 2,749-62 feet, total depth. It is flowing 30 to 40 bbls. of oil per hour through one-quarter inch choke, with closed-in casing pressure 700 pounds and working pressure on the tubing 200 pounds. Duval County Pipe Line is making connections to handle the crude through its gathering line and loading rack. Location is in Tract 254, Porcion 39, northeast of the discovery well.

King-Wood Oil Co.'s No. 1 Guerra, north of the discovery well, in Tract 254, Porcion 39, created considerable excitement when it blew out of control the middle of the week while screen was being pulled preparatory to coring deeper. After blowing wild for 48 hours it was brought under control. Saturated sand was cored from 2,782 to 2,800 feet and it is expected to be completed during the week. Same company's No. 2 John Lawrence, 1,200 feet southeast of the discovery in Tract 274, Porcion 39, and in the original drilling block, is coring below 2,740 feet, and is expected to core the sand the first part of the week.

Moncrief and Showers' No. 1 Francisco B. Guerra, in Tract 254, Porcion 39, 1,500 feet slightly northeast of the discovery, completed for a small producer last week, is coring deeper in attempt to increase its production. When first completed at 2,795 feet it made about 6 bbls. per hour with very high gas pressure. The operators have drilled it deeper to 2,806 feet and cemented the liner below the casing from 2,757 to 2,787 feet. The next producer is expected to be G. A. Clements' No. 1 Francisco B. Guerra, 1,200 feet north of the discovery. Casing has been set and cemented in oil sand at 2,786 feet.

New Tests Started

Four new tests got under way during the week, and a fifth test was ready to spud. King-Wood Oil Co.'s No. 1 David Flores, Tract 262, Porcion 38, about 2,000 feet west of the discovery, was drilling below 540 feet. Edwards and Alford's No. 1 Eusebio Flores, Tract 267, Porcion 38, 1,000 feet west of the discovery, was drilling below 224 feet. Heep Oil Corp.'s No. 1 Francisco B. Guerra, in the Heep 50 acres of the north 115 acres of Tract 254, Porcion 40, 3,000 feet northeast of the discovery, has spudded. Danvers and Harrison's No. 1 Francisco G. Guerra in Tract 12, Porcion 41, about 1 mile east of the discovery, has set and cemented surface casing at 200 feet, and was expected to resume drilling by the first of the week. Downey and Morton have taken over Dayle L. Smith Oil Co.'s No. 3 Daskam in Block 34, Porcion 45, Ancient Jurisdiction of Reynosa, about 4 miles northeast of the Wood discovery well. It has been standing shut down for several months and is scheduled to be drilled to 5,500 feet. Late in the week it was drilling below 1,710 feet. Danvers and Harrison's No. 1 Mrs. Lula George, in the north 55 acres of Tract 13, Porcion 41, is attempting to pull liner below 2,109 feet, preparatory to drilling deeper. It tested considerable gas a few months ago at a total depth of 4,135 feet. In the central part of the county, McCollum Exploration Co.'s No. 1 John C. Engleman, in Lot 3, Block 70, Las Mestenas grant, northeast of Edinburg, is drilling below 3,682 feet in shale and lime. Union Sulphur Co.'s No. 2 American-Rio Grande Land & Irrigation Co. in Lot 2,082, Block 86, North Capisallo district, in the eastern part of the county, is drilling in hard shale and lime below 6,850 feet.

Phillips' Purchase

Phillips Petroleum Co. entered in activities in the Sam Fordyce Field when it bought a total of 97.5 acres in three blocks, northwest, north and northeast of the discovery. The northwest block included the east 30 acres of the northwest 75 acres of Tract 256, Porcion 38, and the north 22.5 acres of the northeast 45 acres of Tract 256, Porcion 38. Consideration was reported to have been $500 cash and $500 in oil per share. The west 15 acres of the block was leased from Mrs. N. Frizzell of McAllen and the remainder from E. Davenport of Mission. The company is also reported to have leased the 20 acres south of State Highway 4 in Tracts 248 and 249, Porcion 40, just south of Sullivan City. The third tract, containing 25 acres, is in Tract 254, Porcion 40, about 2,500 feet northeast of the discovery and adjoining Reynosa Oil Co.'s 20 acres in Tract 254, Porcion 39, in the east.

Tuleta Field

Three miles southwest of the Tuleta Field, interest is centered on Dirks Brothers and others' No. 1 George Ray, a wildcat coring below 3,880 feet in shale, and due to reach the Pettus sand the first of the week. It is reported to be running high. In the West Tuleta Field, Mills Bennett Production extended the field a few hundred feet west when it tested 820 feet of oil on a 10-minute drill stem test from 2,907-22 feet. It topped the Pettus sand at 3,870 feet, but did not encounter the oil until the formation had been drilled 52 feet below what normally is called the Pettus sand. The test is 1,290 feet northeast of Blanco and Buchanan's No. 1 Perex, completed at 3,914-30 feet as a gasser, spraying oil after testing 450 pounds gas pressure and mud, cut with oil. This test was not carried to the second Pettus sand, and it is believed if it is carried deeper chances of making a good producer are favorable. In the same field Whisenant and Trechard's No. 1 Rapp was reported to be in process of completion and showing for a good well. On a drill stem test before cementing casing it showed considerable oil. It is bottomed at 3,933 feet.

In the same county, but in the Caesar Field, Luling Oil & Gas Co.'s No. 4 Ruhman was preparing to swab in the well at a total depth of 3,060 feet. It has the appearance of a producer and will extend production one-half mile northeast.

Webb County

In the Bruni townsite area of the Cole Field, Webb County, three producers and one dry hole was registered. American Liberty Oil Co.'s No. 1-B Bruni on Block 13, Survey 5, of the Foltz Subdivision, just east of the townsite, was completed for an initial production of 20 bbls. per hour through a three-eighths inch choke. It is bottomed at 3,439 feet. Herman Brown's No. 2 Bruni, in Block 8, Survey No. 5, just east of the townsite, was completed at 3,439 feet flowing 20 bbls. per hour through a three-eighths inch choke. Sun Oil Co.'s No. 1 Bruni, Block 4, Survey No. 5, east of the townsite, was completed as one of the best wells in the field; through a three-eighths inch choke it flowed 30 bbls. per hour from a total depth of 3,435 feet. The company is rigging up for its No. 2 Bruni, offsetting the producer. Five other locations were announced. Code Petroleum Co.'s No. 86 Benavides was abandoned at 3,990 feet.

Duval County

Five producers for the Government Wells Field, Duval County, were reported: Felis Oil Co.'s No. 2 Norton, in Survey No. 62, topped the sand from 2,371 feet and was completed for a 50-bbl. pumper at a total depth of 2,380 feet. Humble Oil & Refining Co.'s No. 35 Hall, Survey 360, was completed as a producer but a production gauge had not been taken. It is bottomed at 2,335 feet. The other three producers were completed by Magnolia Petroleum Co. It's No. 10 Duval County Ranch Co., in Survey 59, topped the sand from 2,183-90 feet and was completed for 150 bbls. of oil daily on a one-quarter inch choke. It is bottomed at 2,230 feet. No. 10 J. W. Riley, Survey 45, topped the sand at 2,263-71 feet and flowed 9 bbls. per hour from a total depth of 2,280 feet. No. 9 J. O. Wilson, Survey, was completed for a small pumper. Sand was topped at 2,343-75 feet and it pumped 100 bbls. daily from a total depth of 2,375 feet.

Live Oak County

In the McNeil Field, Live Oak County, Lion Oil & Refining Co.'s No. 2 McNeil was coring in sand below 5,225 feet and was reported to have cored saturated sand from 5,014-16 feet, believed to be the Conroe sand. This is the second test in the field, the first being a producer in sand at 4,360 feet. No. 2 McNeil failed to encounter the Pettus sand.

Gonzales-Guadalupe

Along the Fault Zone area, verdict is being awaited on two interesting wildcats. In Gonzales County, near the town of Belmont, which is over the line in Guadalupe County, H. H. Weinert and others' No. 1 Kailles topped the Edwards lime at 3,880 feet and was coring in that formation late in the week. It is reported to be running low, and is expected to reach the Edwards lime during the week. In southern Guadalupe County, Diamond Half Oil Co.'s No. 1 Maierhofer is drilling below 2,000 feet in the Buda lime. It topped the Austin chalk at 1,836 feet and is reported to be running enough to cause it to be watched very closely. The Edwards lime should be reached this week.

Fayette County

In Fayette County, Texas Seaboard Oil Co. and others' No. 1 Gleckler, a wildcat test 3 miles southeast of LaGrange in the Anna Powell League, made an electrical coring test at 4,023 feet, the total depth which showed an oil sand at 3,292 feet. The operators are now plugging back to test. It topped the Fayette at 900 feet, Dibollensis at 1,530 feet, Crockett at 2,450 feet and the Carrizo at 3,400 feet.

Willacy-Cameron

Since the discovery of the Hidalgo Field, quite an extensive lease play is taking place in Willacy and Cameron Counties. It is reported Magnolia Petroleum Co. has taken a large block in Cameron County and will drill a 4,500-foot test. Several major companies have geophysical crews working in Willacy County in the vicinity of the Sal Del Rey, great salt lake, on the ranch which has attracted the attention of geologists for some time.

Wildcat Operations in Southwest Texas

Week Ending October 27

BANDERA COUNTY

A. P. Crane & Co.'s No. 1 Watson, 988 ft. NE line, 926 ft. SE line, Sec. 71, Antonio Currier Sur.
No report.

Plateau Oil Co.'s No. 1, Garrison Sur. No. 506, 1,500 ft. from N and 2,700 ft. from E lines of Sur. (8 mi. SW of Medina).
Drlg. 965 ft.

BASTROP COUNTY

Champion et al's No. 1 Charles R. Anderson, Antonio Navarro Sur.
Standing 850 ft.

BEE COUNTY

R. M. Herod's No. 5 Kimball, 810 ft. from E line, 150 ft. from N line of 110-ac. tract in S. Winship Sur.
Derrick.

Bill Hindeman's No. 1 Imogene Hall, 2,310 ft. along NW line of S½ of H. W. Fontaine Sur., thence at R/A 1,262 ft.
Rig moved off.

Wm. F. Morgan et al's No. 1 Hicks & Hall, Sec. 43 (Normanna area).
Drlg. 1,250 ft.

Tuleta Oil Co.'s No. 1 George Ray, 330 ft. from E line, midway between N and S lines of George Ray 208.7-ac. tract in Blanchard Sur., 3 miles SW of Tuleta Field.
Drlg. 3,700 ft.

Hewitt et al's No. 1 Ray, ¼ mile S of the North Pettus Field.
T.D. 4,250 ft.; abd.

Humble O. & R. Co.'s No. 1 Daniel Fox, 7,500 ft. from N line, 3,370 ft. from E line of 1,884-ac. tract in M. Fox Sur.
Drlg. 3,860 ft.

Mid-Continent Cruce Oil Co.'s No. 2 Kimball (Grayburg area).
T.D. 200 ft.; S.D.

R. J. Worthington et al's No. 1 Rutledge, 1,000 ft. from N line and 300 ft. from E line of A. Hadley Sur.
T.D. 1,950 ft.; S.D.

BEXAR COUNTY

Lloyd Bender's No. 1 Evans, 1,300 ft. from W line, 200 ft. from N line of 312.7-ac. tract in de la Garza Sur.
Standing 979 ft.

F. T. Chew's No. 1 C. S. Ogden & Brooks, 50 ft. E line, 2,500 ft. from Mitchell Lake, on 1,500-ac. tract, Irrigated farms.
S.D. 350 ft.

M. J. Crouch's No. 3 Hoch, 1,500 ft. N of Medina River, 300 ft. W of E line of 239-ac. tract and 1,240 ft. NE of No. 2 gas well.
Sand 750-55 ft.; 6¼-in. csg. at 600 ft.; I.P. 4 bbls.; T.D. 775 ft.

Dr. Dickens' No. 1 Victor Golia, 150 ft. NW line and 150 ft. NE line of Cardines No. 25 Sur.
S.D. 530 ft.

Jones & Kieffer's No. 1 LaGrane, NW cor. of tract, 210 ft. each way, F. Rolen Sur.
Location.

Linda Oil Co.'s No. 1 Tomasi, Ignacio Perez Sur., 7,694 ft. NE along W line from SW cor., 450 ft. SE of NW line.
T.D. 1,452 ft.; abd.

McFee & Briggs' No. 1 Lamb, 9,200 ft. from S line, 800 ft. W line, Manvel Deluna Sur. No. 3, Tract A. & B.
S.D. 1,065 ft.

Medina Oil Co.'s No. 1 Hendricks, 700 ft. S line, 400 ft. W line of 103-ac. tract, County Blk. 491, C. A. Yoakum Sur. No. 39.
S.D. 1,050 ft.

Ricker & Auld's No. 1 C. H. Kearney, 2,000 ft. from E line, 300 ft. from S of tank, Villapando Sur. No. 142.
Abd. 1,586 ft.

BROOKS COUNTY

Cole Pet. Co.'s No. 1 Ulrich, 785 ft. E line, 1,323 ft. S line of C.C.S.D.&R.G.N.G. Sur. 7
Standing 4,515 ft.; (contract depth).

CALDWELL COUNTY

Anderson's No. 1 Perry, 330 ft. SE and NE lines of 27-ac. tract, Giddeon Pace Sur.
T.D. 1,901 ft.; standing.

F. P. Hynes et al's No. 1 Tramwell, 750 ft. from SE line and 330 ft. from NE line of tract in Ester Berry Sur.
No report.

Kurz Oil Co.'s No. 1 Kurz ranch fee, 4,600 ft. SW line and 4,300 ft. SE line of Barnard Klekant Sur.
Drlg. 3,615 ft.

F. Meyers' No. 1 Mooney, 260 ft. from road, 350 ft. from middle of SE cor. of 102-ac tract, Seale Sur.
Location.

Stanley Smith's No. 1 J. C. Copeland, about 4 miles SW of Lockhart and beyond the Mebana Estate.
Setting up machinery.

DUVAL COUNTY

Grimes et al's No. 1 Fitzsimmons, 300 ft. S line and 150 ft. E line, Sur. 291.
Cmtd. surface csg. 50 ft.; standing.

Byrne & Jennings' No. 1 Benavides, 2,75[illegible] ft. from S cor. and 320 ft. from W line at right angles, Sur. 355.
No report.

(Continued on Page 43)

Wildcat Discovery in Ector County Is Expected; Thirty-Three Locations in Wichita Falls Area

By L. E. BREDBERG
Fort Worth Bureau, The Oil and Gas Journal

FORT WORTH, Tex., Oct. 29.—Another wildcat discovery in northwest Ector County was promised this week when Landreth Production Co. and Humble Oil & Refining Co.'s No. 1 Clarence Scharbauer, in Section 20, Block 44, Township 1n, T.&P. Survey, showed 40 bbls. of oil and 5 bbls. of water when tested at total depth of 4,236 feet. It is to be tested further to find the source of the water. The last 13 feet drilled was reported soft lime and the water may be coming from this stratum. It will probably be shot or treated with acid, possibly both, before it is completed. It now appears as only a small well, but little better than the Davidson discovery 5 miles to the northwest, which is good for around 20 or 25 bbls. per day. The two producers may be linked by other producers and a pool of considerable size proven by drilling on intervening acreage.

C. J. (Red) Davidson and others are planning to drill another wildcat in this part of the county, about a mile from his discovery well in Section 10, Block 45, Township 1n, on the Cummins ranch. It will be drilled in the S half Section 4, northwest of his first well.

Andrews County

Humble Oil & Refining Co.'s No. 2 Means, in Section 6, Block A-19, P.S.L. Survey, Andrews County, east of the company's discovery well in Section 4, Block C-45, appears as possibly a dry hole since logging 2,500 feet of sulphur water in drilling to 4,623 feet. It is to be plugged back to 4,562 feet and a test made. The company holds a large block surrounding the tests in this area, in which it has one small producer, the discovery well, and three other tests drilling. The company is also drilling a test south of the Deep Rock Pool, in the same county. This test is on the Walker lands in Section 6, Block A-43. It encountered 5,000,000 feet of gas at 4,203-09 feet which it is killing to drill ahead.

Landreth Production Co.'s No. 1 T-P Land Trust, in Section 3, Block 43, Township 1s, T.&P. Survey, was completed this week for only 71 bbls. of oil and 21 bbls. of water per day after shooting with 390 quarts from 4,148-4,248 feet. Total depth is 4,295 feet. It marks the western limits of the Cowden Pool. It is 1,872 feet west of the nearest producer, Stanolind Oil & Gas Co.'s No. 7 Cowden.

Schleicher County

Kemper Kimberlin and J. D. Wesner of San Angelo, and W. C. Proctor of Dallas, are moving a rig from Breckenridge to their 7,000-acre block in eastern Schleicher County, to start drilling a 6,500-foot Ordovician test.

The location is to be on Judkins and Spencer lands, in Section 4, Certificate 127, W. W. Russell original grantee, 14½ miles due east of Eldorado. It will start with a 20-inch hole, cable tools to be used. Acreage acquired from this test came out of a 14,000-acre block held by Pure Oil Co. This will make the third Ordovician test drilling in the county, Humble Oil & Refining Co. drilling one 9 miles northwest, and Cooper and others drilling one 9½ miles southeast of Eldorado.

Winkler County

Sayre Oil Co. has completed its No. 1 Howe, in Section 12, Block 26, east of the north end of the Hendricks Pool in Winkler County, for an initial production of 564 bbls. per day at a total depth of 2,874 feet. The company has staked location about three-quarters of a mile northwest on the Daugherty lands in Section 2, Block 26. Magnolia Petroleum Co. has staked location 330 feet from the south and west lines of Section 1, Block 26, north of the discovery and Sinclair Prairie Oil Co. has staked location and moved in material on the Cummins land, 2,310 feet from the north and 330 feet from the east, in Section 11, Block 26, west of the discovery. This area is destined to see considerable drilling within the next few months, and acreage lying between the Howe discovery well and Skelly Oil Co.'s Halley discovery in Section 29, Block B-11, about 14 miles due south is getting a drilling play, two tests now being drilled on acreage between the two wells.

Sid Richardson's No. 1 Hill, in Section 18, Block B-11, approximately 2 miles northwest of the Skelly-Halley discovery well, is evidently to be a dry hole after encountering sulphur water at 3,220-45 feet. It is shut down at the latter depth, limiting the producing area to the east of the Halley producer. There was 800 feet of oil in the hole while drilling at 3,166 feet, and it may be plugged back and possibly a small producer salvaged by shutting off the water and shooting.

Jones County

On the eastern side of the West Texas district, Condor Petroleum Co. has its fourth well ready to complete in the shallow, high gravity area southeast of Hawley in Jones County. The company's No. 4 Sayles, 1,250 feet north of the nearest producer, drilled pay sand from 1,885-86 feet and made 53 bbls. flowing. There are three producers with a daily potential of 850 bbls. in the area. Phoenix Refining Co. of San Antonio is planning to move its 800-bbl. refinery from Eagleford west of Dallas to Abilene to process the crude from the wells in this pool.

Petroleum Oil Interests (Watt Brothers of Brownwood) have acquired a 4,000-acre block 5 miles northeast of the McMillan Pool in Runnels County and are to drill a 2,600-foot test by May 1, 1935. The company now has two producers in the McMillan Pool.

There were 18 locations staked in the West Texas district during the week, 1 a wildcat location and 5 being semiwildcat locations. Atlantic Oil Producing Co. staked location and is already drilling on its No. 1 Miller in Section 3 of the J. C. Russell Survey, to the west of the extension well just completed by Eppenauer Drilling Co. on the Combs lands in southern Ward County. That well was a three-quarter mile southwestern extension to the southern Ward County producing area, and of considerable importance.

WICHITA FALLS

There were 33 locations staked in the Wichita Falls district and 36 tests completed. The important feature for the week was the encountering of a new pay in the Thalia area of Foard County. Fain & McGaha Oil Corp.'s No. 1 J. G. Thompson, in Section 44, Block 18, H.&T.C. Survey, about 5 miles west of the small Thalia Pool, topped a saturated horizon at 2,074 feet, drilling 10 feet in and shutting down to acidize. The hole had not been unloaded and a test made, but it appears likely to be a producer, opening a new pay formation in the area, the production coming from around 2,015 feet in the Tarver or Thalia Pool. Production in the Johnson Pool, on the west side of the county, comes from around 3,555-75 feet. If it makes a commercial producer other tests are expected at once on offset and nearby acreage as it will open the third producing area in the county.

Production in the district averaged 61,550 bbls. per day for the week.

Texas Pacific Coal & Oil Co. of Fort Worth has completed taking a 2,500-acre block about 5 miles northwest of the producing area near Breckenridge. The lands fall in the T.E.&L. Surveys 1,127, 1,128, 1,129, 1,132, 1,141, 1,134 and all of the P. Castleman, S. Anderson and Gornett Surveys. A 3,250-foot test is to be spudded by the fore part of January, 1935.

More than 150 leases in the Wichita Falls district have been shut down or pipe line companies have disconnected therefrom because the operators have failed to make out the required "EB" reports to the Railroad Commission. Instead of disconnecting entirely from the leases, one company has sealed its connections at the leases with the idea of taking oil as soon as the required reports are filled out and the commission grants permission for retaking oil.

PANHANDLE DISTRICT

Humble Oil & Refining Co. is still cleaning out its No. 1 Logan in the A. Pedigo Survey, west of Pringle in Hutchinson County. It was shot with 390 quarts from 3,192-3,270 feet after it was drilled to total depth of 3,296 feet and plugged back to 3,287 feet to shut off water. The hole filled 1,800 feet with oil and bridged, causing a cleaning out job that is holding up completion. It is in absolutely wildcat territory about 7 miles northwest of the nearest production in the Stinnett Pool.

Amtex Oil Co.'s No. 1 Stevenson, in Section 7, Block M-24, T.C. Survey, about midway between the Stinnett Pool and the Humble discovery well, was shot with 120 quarts and filled 800 feet with fluid. It is cleaning out and is expected to make a small pumper. The two producers may be linked with the Stinnett production and tests are expected to be started on intervening acreage.

There were 13 completions reported in the district during the week. Only six locations were reported.

Production in the district averaged 58,795 bbls. per day during the week.

WEST TEXAS

Ector County

Landreth Production Co.'s No. 1 T-P Land Trust, total depth 4,295 feet, shot with 390 quarts from 4,148-4,248 feet, initial production 71 bbls. of oil and 21 bbls. of water.

El Paso County

Tri-State Oil Co.'s No. 1 Bobadella, dry and abandoned 3,401 feet.

Fisher County

Hoffman and Page's No. 1 Milstead, dry and abandoned 3,295 feet. General Crude Oil Co.'s No. 3 George, top pay 3,082 feet, total depth 3,096 feet, acidized, initial production 1,017 bbls. per day, pumping. Beck and others' No. 1 Cooper, dry and abandoned 3,304 feet.

Howard County

Continental Oil Co.'s No. 4 Hart-Phillips, top pay 2,212 feet, total depth 2,312 feet, initial production 1,092 bbls.; No. 12 Settles, top pay 2,252 feet, total depth 2,350 feet, acidized, initial production 1,413 bbls.

Reeves County

Freels and others' No. 1 Greenman, dry and abandoned 3,985 feet, shot with 60 quarts from 2,950-3,980 feet and with 120 quarts from 3,878-3,920 feet.

Ward County

California Co.'s No. 11 Durgin, top pay 2,322 feet, total depth 2,582 feet.

(Continued on Page 41)

Wildcat Operations in West Texas

Week Ending October 29

ANDREWS COUNTY

R. S. Bond et al's No. 1 McCarley, 1,320 ft. from N and W, Sec. 29, Blk. 3, P.S.L. Sur.
Drlg. 3,335 ft.

Honolulu and Llano Oil Co.'s No. 1 J. E. Parker, 1,320 ft. from S line and 1,470 ft. from W line of Sec. 7, Blk. A-44, P.S.L. Sur.
T.D. 4,627 ft.; bad cement job.

Humble Oil & Ref. Co.'s No. 1 B. S. Walker, 660 ft. from E line and 660 ft. from S line of Sec. 6, Blk. A-43, P.S.L. Sur.
Drlg. 4,145 ft.

Humble Oil & Ref. Co.'s No. 2 Means, 1,980 ft. from S and 1,487 ft. from W. Sec. 6, Blk. A-19.
T.D. 4,623 ft.; P/B to 4,562 ft. to test; show oil 4,554 ft.

Humble Oil & Ref. Co.'s No. 2 Means, 660 ft. from N and 1,980 ft. from W, Sec. 11, Blk. A-35.
Cellar.

BORDEN COUNTY

Moore Bros.' No. 1 Clayton & Johnson, 1,320 ft. N and E, Sec. 29, Blk. 32, Twp. 4n, T.&P. Sur.
Location.

BREWSTER COUNTY

Joiner et al's No. 1 McIntyre, 353 ft. from S, 2,390 ft. from E of Sec. 31, Blk. 352, W. M. Mitchell Sur.
S. D. 2,100 ft.

King & Franklin's No. 1 Gage Est., C Sec. 138, Blk. 22, G.H.&S.A. Sur.
Drlg. 237 ft.

COCHRAN COUNTY

West Texas Development Co.'s No. 1 Slaughter, C of Labour 36, League 150, Randall Co. School Lands.
Derrick.

COKE COUNTY

Wm. Hooper's No. 1 Gaston, 240 ft. from S line and 654 ft. from W line of Joseph Sur. No. 11.
S.D. 2,560 ft.

CRANE COUNTY

Continental Oil Co.'s No. 1 M. Dawson, 1,320 ft. from N and 440 ft. from E, Sec. 30, Blk. X.
T.D. 2,478 ft.; shot and acidized; no increase in oil.

Loffland Bros. et al's No. 1 Tubbs.
Preparing to deepen; T.D. 4,510 ft.

Strauss' No. 1 Phelps et al, 2,113 ft. from N and 713 ft. from NW Sec. 13, Blk. 31, H.&T.C. Sur.
Drlg. 475 ft.

CULBERSON COUNTY

Anderson-Pritchard Oil Corp., Magnolia Pet. Co. et al's No. 1 Borders, 1,255 ft. N and 2,305 ft. from W, Sec. 34, Blk. 69, P.S.L. Sur.
Fishing 423 ft.

Miller Bros.' No. 1 fee, 1,900 ft. from N and 660 ft. from E line of Sec. 21, Blk. 97, P.S.L. Sur.
Drlg. 1,788 ft.

World et al's No. 1 Hall, 250 ft. from S and 85 ft. from E, Sec. 11, Blk. 54½, 16 miles N of Van Horn, P.S.L. Sur.
Drlg. 246 ft.

DAWSON COUNTY

Ray Albaugh et al's No. 1 John Robinson, 1,320 ft. from N line, 1,320 ft. from W line of Sec. 46, Blk. M, E.L.R.R. Sur.
Drlg. 3,190 ft.

ECTOR COUNTY

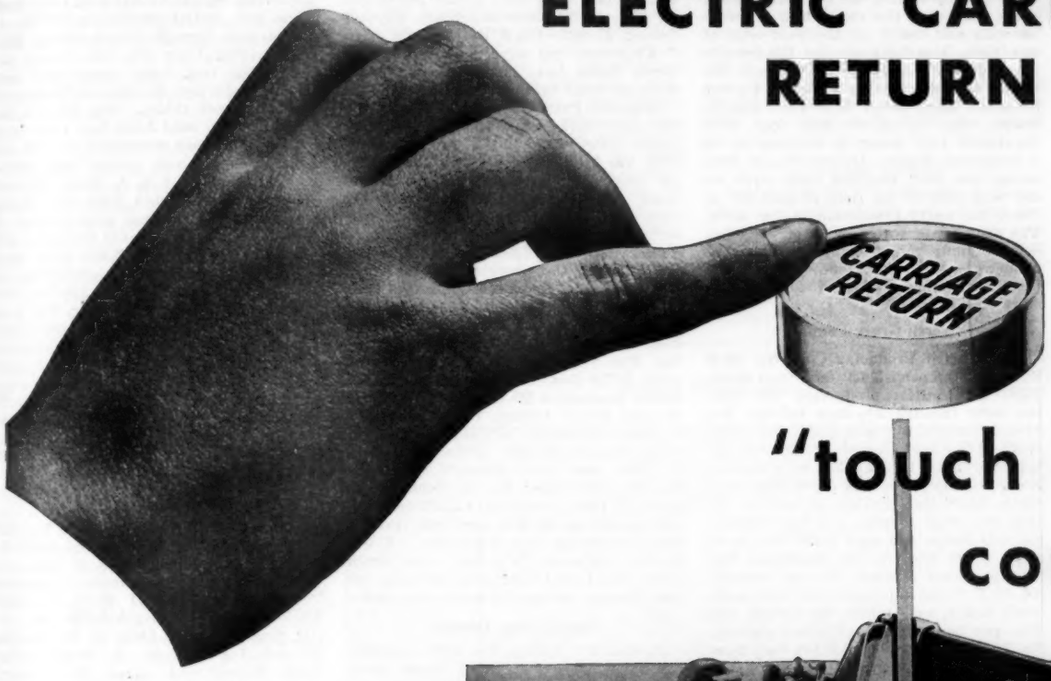
Black et al's No. 1 Connell, 330 ft. from S and 2,310 ft. from W, Sec. 1, Blk. B-16, P.S.L. Sur.
Drlg. 840 ft.

Harrison et al's No. 3 Addis, 1,650 ft. from N line and 2,200 ft. from W line of Sec.

(Continued on Page 42)

Burroughs TYPEWRITER

ELECTRIC CARRIAGE RETURN



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Good Oil Showing in Anderson County Wildcat; Report on Pressures in the East Texas District

By L. E. BREDBERG

DALLAS, Tex., Oct. 29.—An interesting feature in the East Texas district during the week was the logging of a good showing of oil from what was believed to be the Queen City sand, from 440-503 feet, in Gulf Production Co.'s No. 1 Royall-Davey test in the M. Rogers Survey, in what is known as the Camp Hill area of southern Anderson County.

This is the only major company now drilling a wildcat in the district. The showing of oil was passed up with intention of drilling to the Woodbine section to test the block held by the company. If it proves dry in the Woodbine sand it may be plugged back to test the shallow showing reported this week. It is now drilling past 1,100 feet in shale.

Cosden Oil Corp.'s No. 1 Hunt and Miller, in the J. D. Hays Survey, 5 miles north of Frankston, in eastern Henderson County, is coring at 4,910 feet after topping the Woodbine at reported depth of 4,849 feet. The next few days should give the "low down" on this test, which appears to be in the lower Woodbine section.

Freestone County

E. L. Smith Oil Co. and others' No. 1 Barker, in the A. G. Smith Survey, 4½ miles south of Dew, in Freestone County, logged the base of the Austin chalk at 4,329 feet and is now drilling at 4,400 feet. It logged the Pecan Gap chalk from 3,370-3,460 feet.

Rio Oil Corp.'s No. 1 Easter, in the R. Hotchkiss Survey, 4½ miles east of Emory in Rains County, logged the base of the Austin chalk at 3,728 feet and made a drill stem test at 4,240 feet showing only 3,000 feet of mud in 10 minutes, with no oil, gas or water. It is now coring and completion should be reported within a short time.

Hopkins County

Hill and Hill's No. 1 Jones, in the Jasper Williams Survey, southeastern Hopkins County, is drilling below 3,300 feet. It logged Pecan Gap chalk from 2,600-2,702 feet. Elevation is 485 feet. It is logging about the same as McElreath and Suggett and Pure Oil Co.'s No. 1 Holley, a dry hole about 5 miles south and a little west. It is rated as one of the most interesting wildcats in the district due to the large block on which it is located and because of the interest displayed in the area when report was announced that a test would be drilled. John Farrell of Fort Worth holds a large block across the county line to the east in Franklin County, on which a test will probably be drilled. Phillips Petroleum Co. formerly held the block on which Hill and Hill are drilling their test.

Hunt County Wildcat

Location has been made in Hunt County for a wildcat by Long & Wolfe on Aetna Life Insurance Co. lands in the Ferguson Survey. J. P. Haley has made location on the J. R. Stroud farm in the Varela Survey of Limestone County.

East Texas Field

The Railroad Commission's engineering department reports the bottom hole pressure in the East Texas Field has increased 3 pounds in the past 30 days. This puts the pressure up to 1,231 pounds on an average for the field. However, the completion of a considerable number of pumping wells, especially on the eastern edge of the field, generally in the Joiner or Kilgore area, shows pressures in these areas to have dropped to the point where even swabbing and agitating has not the desired effect of producing a flow. Each week sees several wells put on the pump as they are completed. Each week also sees the completion of wells showing salt water on the west edge of the field, especially in the Gladewater area of western Gregg County and the northwest edge of the field in Upshur County. These areas have been heavily drawn upon during the past year, with the result that water is showing up to a dangerous degree. Operators and companies are busy plugging back wells on the west side of the field to shut off or check the water production in the wells. The showing of water in these wells has led the many refineries operating in the Gladewater area to extend their gathering lines farther into the field to obtain more oil.

North Gregg County

Atlantic Oil Producing Co.'s No. 26-B Burnside, top sand 3,490 feet, total depth 3,530 feet, initial production 100 bbls. per hour through 2½-inch tubing; No. 27-B Burnside, top sand 3,497 feet, total depth 3,530 feet, initial production 100 bbls. per hour through 2½-inch tubing; No. 7-B Judge, top sand 3,503 feet, total depth 3,528 feet, initial production 140 bbls. per hour through 2½-inch tubing; No. 9-B Judge, top sand 3,493 feet, total depth 3,526 feet, initial production 130 bbls. per hour through 2½-inch tubing; No. 12-B Judge, top sand 3,487 feet, total depth 3,523 feet, initial production 140 bbls. per hour through 2½-inch tubing; No. 14-B Judge, top sand 3,486 feet, total depth 3,530 feet, initial production 130 bbls. per hour through 2½-inch tubing; No. 21 Turner, top sand 3,548 feet, total depth 3,600 feet, initial production 150 bbls. per hour through 2½-inch tubing. Guiberson Oil Co.'s No. 7 Stucky-Thrasher, top sand 3,584 feet, total depth 3,635 feet, initial production 60 bbls. in 30 minutes through 2½-inch tubing. H. Hanbury's No. 2 Foshee, top sand 3,655 feet, total depth 3,657 feet, initial production 51 bbls. in 30 minutes through 2½-inch tubing. Humble Oil & Refining Co.'s No. 7 Clements, top sand 3,570 feet, total depth 3,618 feet, initial production 78 bbls. per hour through 2-inch choke.

Magnolia Petroleum Co.'s No. 6 Sparks, top sand 3,671-81 and 3,684-86 feet, total depth 3,696 feet, initial production 60 bbls. per hour through 2-inch choke; No. 14 Zeigler, top sand 3,469 feet, total depth 3,493 feet, initial production 111 bbls. per hour through 2-inch choke. Reserve Petroleum Co. and others' No. 3 Fuller, top sand 3,648 feet, total depth 3,653 feet, initial production 20 bbls. per hour by heads. Stanolind Oil & Gas Co.'s No. 5 Dollahite, top sand 3,643 feet, total depth 3,700 feet, initial production 29 bbls. in 30 minutes through 2-inch tubing. Sun Oil Co.'s No. 9-B Tooke, top sand 3,512 feet, total depth 3,584 feet, initial production 29 bbls. in 30 minutes through 2-inch tubing. Yount Lee's No. 9 Adrian-McCreary, top sand 3,474 feet, total depth 3,494 feet, initial production 55 bbls. per hour through eleven-sixteenths inch choke; No. 12 Hopkins, top sand 3,517 feet, total depth 3,537 feet, initial production 55 bbls. per hour through eleven-sixteenths inch choke; No. 7-A McKinley, top sand 3,571 feet, total depth 3,591 feet, initial production 60 bbls. per hour through eleven-sixteenths inch choke.

South Gregg County

Barnsdall Oil Co.'s No. 10-B Douglas, top sand 3,667 feet, total depth 3,670 feet, initial production 75 bbls. per hour through 2-inch tubing. Bay Oil Co.'s No. 9 Peterson, top sand 3,612 feet, total depth 3,641 feet, initial production 57 bbls. per hour through 2-inch tubing. Gulf Production Co.'s No. 7 King, top sand 3,586 feet, total depth 3,598 feet, initial production 62 bbls. per hour through 2-inch tubing. King and others' No. 1 Reynolds, top sand 3,544 feet, total depth 3,588 feet, initial production 10 bbls. in 30 minutes through 2-inch tubing. Merritt Drilling Co.'s No. 1-A Choice, top sand 3,560 feet, total depth 3,605 feet, initial production 40 bbls. in 20 minutes through 2-inch tubing. Tom Potter's No. 1 Daniels, top sand 3,534 feet, total depth 3,625 feet, initial production 10 bbls. per hour through 2-inch tubing. Shell Petroleum Corp.'s No. 4 A. A. King, top sand 3,534 feet, total depth 3,606 feet, initial production 40 bbls. per hour through 2-inch tubing. Sovereign Oil Co.'s No. 2-D Sam Carr, top sand 3,485 feet, total depth 3,501 feet, initial production 24 bbls. in 15 minutes through 2½-inch tubing. Texas Co.'s No. 41 Cole, top sand 3,502 feet, total depth 3,555 feet, initial production 84 bbls. per hour through 2-inch tubing; No. 8 Walker, top sand 3,585 feet, total depth 3,589 feet, initial production 65 bbls. per hour through 2-inch tubing. Tide Water's No. 10 Blackman, top sand 3,655 feet, total depth 3,660 feet, initial production 10 bbls. in 10 minutes through 1-inch choke.

North Rusk County

Humble Oil & Refining Co.'s No. 127 Crim, top sand 3,617 feet, total depth 3,641 feet, initial production 95 bbls. per hour through 2½-inch tubing. Magnolia Petroleum Co.'s No. 11 Wells, top sand 3,657-69 feet, total depth 3,720 feet, initial production 15 bbls. in 15 minutes through 1-inch choke. J. Beren's (formerly Merrett and others) No. 1 Jones, top sand 3,618 feet, total depth 3,651 feet, initial production 20 bbls. per hour through 2-inch tubing by heads. Tide Water Oil Co.'s No. 8 Jernigan, top sand 3,666 feet, total depth 3,680 feet, initial production 30 bbls. in 15 minutes through 1-inch choke.

South Rusk County

Atlantic Oil Producing Co.'s No. 31 Kinney, top sand 3,588 feet, total depth 3,663 feet, initial production 50 bbls. per hour. Capital Oil Production Co.'s No. 1-C Frederick, top sand 3,523 feet, total depth 3,640 feet, initial production 25 bbls. per hour through 2-inch tubing. A. P. Carey's No. 1 Hale, top sand 3,552 feet, total depth 3,603 feet, initial production 10 bbls. in 30 minutes swabbing. H. B. W. Oil Co.'s No. 8 Redwine, top sand 3,535 feet, total depth 3,572 feet, initial production 20 bbls. in two hours, pumping. R. Haddaway's No. 4 Church Lot, top sand 3,753 feet, total depth 3,800 feet, initial production 75 bbls. per hour through 2-inch tubing. Humble Oil & Refining Co.'s No. 46-A R. E. Silvey, top sand 3,682-3,728 feet, total depth 3,757 feet, initial production 75 bbls. per hour through 2-inch choke; No. 28 J. W. Turner, top sand 3,655 feet, total depth 3,764 feet, initial production 45 bbls. per hour through 2-inch choke; No. 29 J. W. Turner, top sand 3,636-42 feet, total depth 3,718 feet, initial production 48 bbls. per hour through 2-inch choke.

Jackson-Wise-Snedden's No. 8 Wilson, top sand 3,618 feet, total depth 3,645 feet, initial production 40 bbls. in 20 minutes through 2½-inch tubing. Johnson-Olson's No. 14 Powers, top sand 3,681 feet, total depth 3,688 feet, initial production 40 bbls. in 20 minutes through 2½-inch tubing. Alex McCutcheon's No. 3 Clay, top sand 3,603 feet, total depth 3,650 feet, initial production 23 bbls. in 48 minutes through 2-inch tubing. Marathon Oil Co.'s No. 76 Grissom, top sand

East Central Texas Wildcats

Week Ending October 27

ANDERSON COUNTY

Gulf Prod. Co.'s No. 1 Dovey & Royall, 330 ft. from NE and NW of 172-ac. tract, M. Rogers Sur.
Began Oct. 23; 10-in. 354 ft.; drlg. 763 ft.; cored 466-83 ft.; recovered 3 ft. dark brown, well saturated oil sand; cored 481-503 ft., recovered 2 ft. same; W.O.

J. W. Luttes' No. 1 C. McKee, 2,640 ft. from N line of lease and survey and 330 ft. from W line of McKey 800-ac. tract.
Derrick.

Trinity State Oil Co.'s No. 1 Trinity River, 1,870 ft. N and 1,200 ft. W of SW cor. of Sullenberger lands, Wm. Snyder Sur.
Derrick.

BOWIE COUNTY

Tex-Ark. Oil Co.'s No. 1 Hamilton Estate, 600 ft. E and 350 ft. N lines, J. Milan Sur., 4 miles S of Red River.
Rigging up.

CHEROKEE COUNTY

Fidelity Oil & Royalty's No. 1 Holcomb, 330 ft. from S line and 330 ft. from E line of 90-ac. tract, being Sec. 30, Z. Gibbs Sur., 2 mi. S old Golcston dry hole.
Began Oct. 23; 10-in. 275 ft.; W.O.C.

H. L. Hunt Production Co.'s No. 1 Powell Lumber Co., 467 ft. from S and W lines of 52-ac. tract, 1 mile E and one-quarter mile N of discovery well, D. W. McNab Sur.
Location.

Jackson Oil & Gas Co.'s No. 1 H. D. Henderson, 660 ft. from N and W line of 40-ac. tract out of Tankersley 104-ac. tract, 5 miles NE of Jacksonville on W side of railroad, J. Pineda Sur.
T.D. 752 ft.

Guy Jameson et al's No. 1 Mullineaux, con. 20-ac. tract out of NW cor. of SE of T. M. Garrett Sur., 5 miles NW of Maydell, 10-in. 255 ft.; elev. 342 ft.; drlg. shale 1,940 ft.

South Gulf Oil Co.'s No. 1 Joe Bailey, center 164-ac. tract, 4 miles NE of Ponta.
L. R. Rhodes Sur., Abstract No. 724.
Set pipe 4,148 ft.; to test.

E. M. Thomason et al's No. 1 Addis Estate, 250 ft. S of survey and 150 ft. E of railroad, J. T. Jones Sur., 6 miles NW Alto.
S.D. 2,150 ft.

Wilson Stubbs Oil Co.'s No. 1 Rowborts, 450 ft. from S line, 150 ft. from W line of 100-ac. tract, 2 miles SW of Jacksonville, J. D. Wolfin Sur.
S.D. 1,550 ft.

ELLIS COUNTY

Beckner-Finley et al's No. 1 Coker, 2,900 varas along S line of grant from river and 1,700 varas N at R/A, R. De La Pena Sur.
Shut down.

FALLS COUNTY

Eureka Drlg. Co.'s No. 1 L. Davis, 150 ft. N of Blk. 19, and 1,970 ft. W of Blk. 18, Zora League, 8 miles N of Marlin.
16 gallons oil per day at 1,020 ft.; drlg. 1,150 ft.

FANNIN COUNTY

L. Kean et al's No. 1 L. M. Boyd, 900 ft. from E line and 200 ft. from N line of survey, W. Hunt Sur.
S.D. 2,505 ft.

FREESTONE COUNTY

Burris' No. 1 R. J. Johnson, NE cor. of a 95-5-ac. tract, W. M. C. Jones Sur.
S.D. 1,000 ft.

Halley-Young's No. 1 Cochran, 400 ft. N and W lines, D. Bullock Sur., 1 mile SE of Lima.
Location.

E. L. Smith et al's No. 1 Heimple, 450 ft. out of NE cor. A. G. Smith Sur., 4¼ miles S of Dew.
Elev. 492 ft.; top Midway 1,814 ft.; top Nav. 2,163 ft.; Pecan Gap chalk 3,370-3,460 ft. and shale 3,970 ft.

HARRISON COUNTY

W. G. Boyd et al's No. 1 W. L. Rudd, no check; in sec. of 360-ac. tract and sur. To be drilled for gas; W. D. Perry Sur.

(Continued on Page 43)

3,612 feet, total depth 3,616 feet, initial production 50 bbls. per hour through 2½-inch tubing. Milford Oil Co.'s No. 5 Thrash, top sand 3,735 feet, total depth 3,775 feet, initial production 25 bbls. in 15 minutes through 2½-inch tubing. Overton Refining Co.'s (formerly Yandle Rogers) No. 1 Town heirs, top sand 3,760 feet, total depth 3,790 feet, initial production 75 bbls. per hour through 2½-inch tubing. Royal Petroleum Co.'s No. 6 Goforth, top sand 3,760 feet, total depth 3,763 feet, initial production 40 bbls. per hour through 2-inch tubing. Texas Co.'s No. 4 Hanna, top sand 3,573 feet, total depth 3,597 feet, initial production 20 bbls. in 20 minutes through 2-inch tubing. Tide Water Oil Co.'s No. 9 Pool, top sand 3,706-56 feet, total depth 3,766 feet, initial production 15 bbls. in 15 minutes through 2-inch tubing. Tysco Oil Co.'s No. 2-C Frederick, top sand 3,550 feet, total depth 3,660 feet, initial production 20 bbls. in two hours pumping.

Smith County

Magnolia Petroleum Co.'s No. 23 I. Wright, top sand 3,649 feet, total depth 3,670 feet, initial production 30 bbls. in 15 minutes through 1-inch choke. Marathon Oil Co.'s No. 12 Thompson, top sand 3,679 feet, total depth 3,682 feet, initial production 84 bbls. per hour through 2½-inch tubing. Sinclair Prairie's No. 27-A Mayfield, top sand 3,756 feet, total depth 3,757 feet, initial production 30 bbls. in 30 minutes through 2½-inch tubing; No. 18 Wright, top sand 3,760 feet, total depth 3,762 feet, initial production 35 bbls. in 15 minutes through 2½-inch tubing.

Upshur County

Arkansas Oil Co.'s No. 3 Victory, top sand 3,636 feet, total depth 3,656 feet, initial production 125 bbls. per hour through 2-inch tubing. Delta Drilling Co. and others' No. 1 Reed, top sand 3,673 feet, total depth 3,675 feet, initial production 30 bbls. in 30 minutes through 2½-inch tubing. Humble Oil & Refining Co.'s No. 5 Shelton, top sand 3,718 feet, total depth 3,725 feet, initial production 51 bbls. per hour through 2-inch choke. Magnolia Petroleum Co.'s No. 23 Free, top sand 3,695 feet, total depth 3,705 feet, initial production 65 bbls. per hour through 2-inch choke. B. F. Phillips' No. 5 Cocke, top sand 3,666 feet, total depth 3,678 feet in hard sand, dry and abandoned. Sun Oil Co.'s No. 11 Loden, top sand 3,711-23 feet, total depth 3,723 feet in sandy shale, initial production 20 bbls. per hour through 2-inch tubing.

West Texas Fields

(Continued from Page 38)

initial production 132 bbls.; No. 13 York, top pay 2,355 feet, total depth 2,525 feet, initial production 122 bbls. Gulf Production Co.'s No. 33 Hutchins, total depth 2,782 feet, shot with 170 quarts from 2,600-2,775 feet, initial production 35 bbls. in two hours.

Winkler County

Richardson's No. 5-A Scarborough, abandoned location; No. 2-D Scarborough, top pay 2,810 feet, total depth 3,104 feet, initial production 73 bbls. Sayre Oil Co.'s No. 1 Howe, top pay 2,820 feet, total depth 2,874 feet, initial production 564 bbls. per day. Skelly Oil Co.'s No. 1 Halley, top pay 3,105 feet, total depth 3,112 feet, initial production 388 bbls. per day.

WICHITA FALLS COMPLETIONS

Montague County

Continental Oil Co. and Seitz' No. 3-A Seitz, top pay 1,557 feet, total depth 1,626 feet, initial production 250 bbls.

Archer County

Banner Oil Co.'s No. 13-F Abercrombie, top pay 1,125 feet, total depth 1,137 feet, initial production 25 bbls. Burns' No. 2 Harris, dry and abandoned 1,426 feet. Continental Oil Co.'s No. 8-B Falls County, top pay 1,129 feet, total depth 1,131 feet, initial production 200 bbls. Cullum and Alexander's No. 1 Falls County, top pay 1,113 feet, total depth 1,120 feet, initial production 50 bbls. Fain and McGaha's No. 19 Arnold, top pay 1,178 feet, total depth 1,194 feet, initial production 250 bbls. Grace and Woods' No. 1 Archer County, top pay 909 feet, total depth 915 feet, initial production 50 bbls. of oil and 3 bbls. of water. Hamilton's No. 3 Coffield, top pay 1,194 feet, total depth 1,208 feet, initial production 200 bbls.; No. 20 Pace, top pay 1,142 feet, total depth 1,156 feet, initial production 70 bbls.; No. 21 Pace, top pay 1,158 feet, total depth 1,165 feet, initial production 140 bbls.

King and others' No. 1 Andrews, top pay 874 feet, total depth 884 feet, initial production 35 bbls.; No. 1 Purcell, dry and abandoned 1,262 feet. Maxson, Jr.'s No. 29-B Green, top pay 1,081 feet, total depth 1,097 feet, initial production 100 bbls. Pace's No. 11 Abercrombie, top pay 1,144 feet, total depth 1,151 feet, initial production 50 bbls. George Pace's No. 12 Abercrombie, top pay 1,151 feet, total depth 1,161 feet, initial production 60 bbls. Perkins and Cullum's No. 15-B Falls County, top pay 1,114 feet, total depth 1,126 feet, initial production 75 bbls. Petroleum Producers Co.'s No. 5 Harmonson, top pay 951 feet, total depth 970 feet, initial production 100 bbls. Steele & Co.'s No. 1 Bridwell, top pay 1,341 feet, total depth 1,345 feet, initial production 20 bbls. United Producers Co.'s No. 1 Perkins, dry and abandoned 1,676 feet. Underwood Drilling Co. and Campbell's No. 4-B Campbell, top pay 945 feet, total depth 1,027 feet, initial production 10 bbls.

Jack County

Buttram Petroleum Corp.'s No. 2 Van Hoosier, dry and abandoned at 2,034 feet. Nail's No. 1 Peterson, dry and abandoned 530 feet. Hooker's No. 1 Plemmons, dry and abandoned 718 feet. Miller's No. 1 Henderson, dry and abandoned 350 feet.

Young County

Crabb's No. 3 Hamilton, top pay 877 feet, total depth 896 feet, initial production 15 bbls. per hour, swabbing. Wheeler and Brashear's No. 9-D Jeffery, dry and abandoned 867 feet. White, Duncan and others' No. 1 Lofton, dry and abandoned 736 feet. Nash's No. 1 McKinley, dry and abandoned 4,155 feet. Nash and Windfohr's No. 9 Graham-Vick, top pay 2,655 feet, total depth 2,675 feet, initial production 210 bbls.

Wichita County

Bonner Oil Co.'s No. 6 Allen & Kemp, dry and abandoned 484 feet. Burns and Long's No. 5-D Allen & Kemp, dry and abandoned 470 feet. Empire Holding Co.'s No. 2 Foster and Allen, abandoned location. Hunter's No. 37-A Waggoner Brothers, dry and abandoned 1,905 feet. McClinton's No. 2 Honaker, dry and abandoned 600 feet. Petroleum Producers Co.'s No. 48 Allen & Kemp, top pay 451 feet, total depth 463 feet, initial production 11 bbls.

Wilbarger County

Bertram and others' No. 1 Druesselman, dry and abandoned 3,689 feet.

PANHANDLE DISTRICT

Carson County

Ryan Consolidated Oil Co.'s No. 9 Block, top pay 3,033 feet, total depth 3,095 feet, shot 250 quarts from 3,015-85 feet, initial production 245 bbls. day, pumping. Texas Co.'s No. 4 Noel, top pay 3,190 feet, total depth 3,310 feet, initial production 35 bbls. day, pumping.

Childress County

Robertson's No. 1 Biddy, temporarily abandoned.

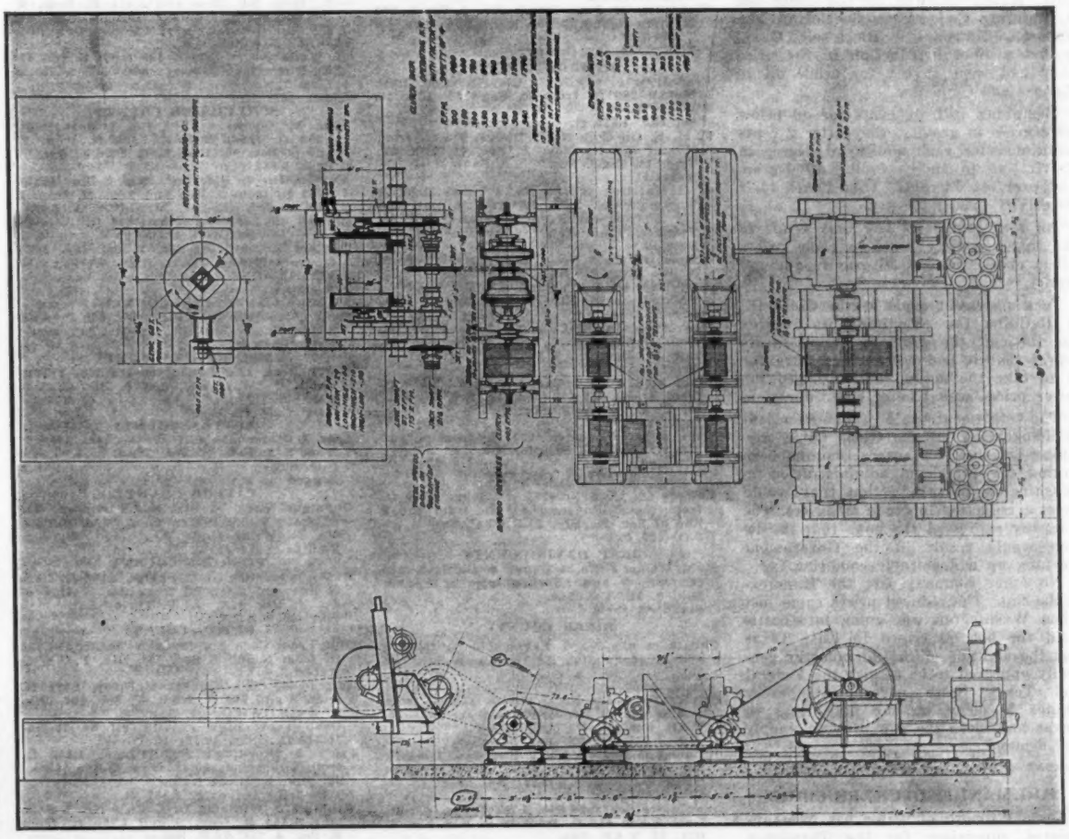
Gray County

Gulf Production Co.'s No. 6 Thompson, top pay 3,220 feet, total depth 3,274 feet, shot 250 quarts from 3,170-3,260 feet, initial production 357 bbls. day, pumping. Wilcox Oil & Gas Co.'s No. 30 Combs-Worley, dry and abandoned 3,094 feet.

Hutchinson County

Alamosa Oil Co.'s No. 5 Sanford, top pay 2,779 feet, shot 120 quarts from 2,694-2,774 feet, initial production 37,-

Lucey Mechanical Drive Rotary Drilling Outfit



The Lucey internal combustion engine powered mechanical drive rotary drilling outfit is recommended for any depth, limited only by amount of power, by the manufacturers who also say the factors considered in its design include flexibility, ruggedness, compactness and portability. Power is transmitted through flexible, shock-absorbing V belts.

Each engine is mounted on heavy structural steel sled-type skids extended to take the power takeoff. The power takeoff shafts are mounted on SKF self-aligning roller bearings and connected by Diamond chain couplings. Each V belt pulley is mounted between two bearings, eliminating troublesome overhanging drive. To remove the V belts, the flexible couplings are disconnected, the pedestal caps removed, and the shaft with bearing sleeves and seals all intact is lifted sufficiently to allow belts to pass.

Engines are connected by V belts so that both engines may be used to drive either the hoist or pump. Either engine may be used to drive either the hoist or pump and either engine may be used to drive both the hoist and pump. This last feature allows major repairs to be made on either engine without completely shutting down drilling operations.

The drive connecting the two engines is completely cut out during normal drilling operations by disconnecting the couplings, thereby eliminating excessive wear encountered when the idle pulley floats on revolving shaft.

The type B-4800-S Lucey reverse clutch is said to be one of the largest and most rugged of its type ever introduced into drilling service, and has been field-proven in heavy duty rotary drilling operations over a long period. At 900 r.p.m. engine speed, 405 r.p.m. clutch speed, it is rated at 960 horsepower with safety factor of four.

HUDSON'S BAY DEVELOPMENT

Imperial Oil Co. and Hudson's Bay Oil & Gas Co. have agreed to develop the territory held by Hudson's Bay in western Canada.

300,000 feet of gas. Dixon Creek Oil & Refining Co.'s No. 2-K Cockrell, top pay 2,925 feet, total depth 3,011 feet, shot 290 quarts from 2,931-3,006 feet, initial production 136 bbls. day, pumping.

Collingsworth County

Milton and others' No. 1 Franks, dry and abandoned 2,525 feet.

Wheeler County

Alma Oil Co.'s No. 5 Johnson, top pay 2,345 feet, total depth 2,462 feet, initial production 349 bbls. day with 4,500,000 feet of gas; No. 1 Perkins, top pay 2,417 feet, total depth 2,512 feet, initial production 64 bbls. Champlin Refining Co.'s No. 4 Williams, top pay 2,466 feet, total depth 2,550 feet, initial production 166 bbls. and 2,500,000 feet of gas. Christie & Hickman's No. 1 Walker, dry and abandoned 2,411 feet. Gibson Oil Co.'s No. 10 Bentley, temporarily abandoned.

Kelly and others' No. 1 Plummer, temporarily abandoned. Ohio Fuel Co.'s No. 3 D'Spain, top pay 2,440 feet, total depth 2,492 feet, initial production 1,303 bbls. Smith Brothers' No. 4 Harland, top pay 2,515 feet, total depth 2,532 feet, initial production 2,219 bbls. and 10,000,000 feet gas. Texas Co.'s No. 1 Buck, top pay 2,362 feet, total depth 2,514 feet, initial production 112 bbls. day, pumping.

Kanotex and Globe Post Lower Crude Oil Prices

Effective October 25, the Kanotex Refining Co., with a refinery in Arkansas City, Kans., followed by the Globe Oil & Refining Co., with refineries in McPherson, Kans., and Blackwell, Okla., posted a 46-cent reduction in the price they had been paying for crude oil in Kansas and Oklahoma.

Beginning with 40 cents for oil below 30 degrees in gravity, they offer 2 cents additional for each additional degree in gravity up to and including 40 degrees and over, at 62 cents. This makes their 36-gravity price 54 cents.

As both companies buy only crude in the upper gravity brackets their prices affect only crudes of 36 gravity and upwards.

In a statement made by the Globe Oil & Refining Co. explaining its reasons for the cut, the company expressed its regret that it had become necessary for it to take the action, but it hoped the lower prices would be of short duration.

The statement said that President O'Shaughnessy, of the Globe Oil & Refining Co., had for several months been urging the petroleum administration in Washington to take action that would avert a reduction in crude oil prices. The company expressed the hope that its action would result in the Government cleaning up a deplorable condition.

No other company met the Kanotex-Globe cuts. The reduced prices came just when Washington was going into battle with the hot oil crowd in East Texas and the attitude of the oil industry generally appeared to be to give the Federal and Texas State governments every chance to clean up the ugly mess in Texas and close the gap between supply and demand.

RIG MANUFACTURERS CODE

Deck Wilmoth of Tulsa has been appointed supervisor for the Petroleum Steel Rig Manufacturers division of the American Petroleum Equipment Industry and Trade of the Code Authority, succeeding H. L. Dickson. The appointment is effective November 1 and the headquarters will be at 818 Atlas Life Building as formerly.

Mr. Wilmoth, a graduate of the University of West Virginia, is well known to the oil industry, formerly having been with Parkersburg Rig & Reel Co. as branch manager and later with Mahan, McCarty & Besse, Inc., rig builders. For the past two years Mr. Wilmoth has been engaged in gold mining near Leadville, Colo., with John Merrick, Tulsa geologist.

West Texas Wildcats

(Continued from Page 38)

35, Blk. 42, Twp. 2s, T.&P. Sur.
T.D. 910 ft.; underreaming csg.
Landreth Prod. Co.'s No. 1 Johnson, 440 ft. from N and W, Sec. 47, Blk. 43, Twp. 1s, T.&P. Sur.
Drlg. 1,010 ft.
Landreth Prod. Co.'s No. 1 Clarence Scherbauer, 660 ft. from S and E. lines of Sec. 20, Blk. 44, Twp. 1n, T.&P. Sur.
Drlg. 4,162 ft.; oil and gas at 4,135-45 ft.
Skelly Oil Co.'s No. 1 Scarborough, 617 ft. from S and 660 ft. from E, Sec. 26, Blk. B-15, P.S.L. Sur.
Drlg. 3,650 ft.; oil at 3,518 and 3,525 ft.; heading.
Stanolind Oil & Gas Co.'s No. 8 J. M. Cowden, 440 ft. from S line and 440 ft. from W line, Sec. 34, Blk. 43, Twp. 1n.
S.D. 280 ft.
Sunray & Llano's No. 2 Jones, 2,310 ft. from N and E, Sec. 6, Blk. 44, Twp. 3s.
Derrick.

EDWARDS COUNTY

Harry Adams' No. 1 Holman, 1,650 ft. from N and 330 ft. from E, Sec. 22, C.C.S.D. &R.G.N.G. Sur.
S.D. 540 ft.; show oil 520-25 ft.

EL PASO COUNTY

Mesa Oil Co.'s No. 1 Coronado Valley.
S.D. 1,415 ft.

FISHER COUNTY

Merry Bros. and Perrini, Inc., et al's No. 1 Dean, 660 ft. from S and E, Sec. 2, Blk. R., W. E. Richardson Sur.
Drlg. 2,410 ft.
Texas Co.'s No. 2 Daniels, 330 ft. from N and W, Sec. 194, Blk. 1, B.B.B.&C. Sur.
T.D. 3,111 ft.; swabbing 100 bbls. oil and 80 bbls. water per day.
Texas Co.'s No. 1 First National Bank of Rotan, 330 ft. N and E of the NW cor. of Sec. 210, B.B.B.&C. Sur.
T.D. 3,148 ft.; set csg.

GLASSCOCK COUNTY

John I. Moore et al's No. 1 J. S. McDowell, 1,980 ft. from N line and 660 ft. from E line of Sec. 22, Blk. 34, Twp. 2s, T.&P. Sur.
Drlg. 5,741 ft.
Wahlenmaier Pet. Corp.'s No. 1 Boyd, 990 ft. from N and E, Sec. 9, Blk. 36, Twp. 5s, T.&P. Sur.
T.D. 2,115 ft.; fishing.

HOWARD COUNTY

Fred Hyer et al's No. 1 Clay, 2,310 ft. from N and 330 ft. from E, Sec. 126, Blk. 29, W.&N.W. Sur.
Set csg. 1,550 ft.
F. H. E. Oil Co.'s No. 2 Dodge, 330 ft. from N and 990 ft. from E, Sec. 15, Blk. 30, Twp. 1s, T.&P. Sur.
Material.
L. C. Harrison et al's No. 2 Texas Land & Mortgage Co., 2,310 ft. from E line and 330 ft. from the S line of Sec. 4, Blk. 30, Twp. 1s, T.&P. Sur.
Derrick.
Illinois Oil Co.'s No. 1 Logan, 990 ft. from N line, 2,310 ft. from E line, Sec. 2, Blk. 30, Twp. 1s, T.&P. Sur.
Treated three times; pumping 45 bbls. day.
Iron Mountain Oil Co.'s No. 1 Read, 330 ft. from E line, 330 ft. from S line, Sec. 46, Blk. 30, Twp. 1n, T.&P. Sur.
Drlg. 1,880 ft.
Mixon et al's No. 1 Capps & Lucas, 2,310 ft. from S and 330 ft. from W, Sec. 17, Blk. 29, Twp. 1n, T.&P. Sur.
Drlg. 1,692 ft.
Slagel's No. 1 Foster, 990 ft. from S and 330 ft. from W, Sec. 43, Blk. 29.
Spudded.

IRION COUNTY

Melrose Oil Co.'s No. 1 J. D. Sugg, 1,700 ft. from the E line and 308 ft. from the S line of Sec. 25, Blk. 2, H.&T.C. Sur.
S.D. 270 ft.

JEFF DAVIS COUNTY

C. M. Joiner's No. 1 Jones & Coffield, 770 ft. from N and 1,322 ft. from E, Sec. 8, Blk. 3, H.&T.C. Sur.
Standard tools.

JONES COUNTY

Choate et al's No. 1 Faver, 170 ft. from S and E of Subdiv., A. Thompson Sur. No. 26.
Drlg. 2,000 ft.
Condor Pet. Co.'s No. 3 Sayles, 650 ft. from S and 330 ft. from W, Sec. 1, Blk. 20, T.&P. Sur.
T.D. 1,585 ft.; top pay here.
Hammer & Beam's No. 1 Sheppard, 1,208 ft. from N and 200 ft. from E of 180-acre tract, D. Minter Subdv. No. 53.
Drlg. 260 ft.
John Byram et al's No. 1 P. Jones, 200 ft. from S and 660 ft. from W of NW, Sec. 4, Blk. 15, T.&P. Sur.
Flowing 60 bbls. day; T.D. 1,935 ft.
Ray & Staniforth's No. 1 Stewart, 600 ft. E of Texas Inland Oil Co.'s No. 1 Inland.
Location.
Richards et al's No. 1 Ransom, 200 ft. from N and E, Sec. 244, B. M. Clopton Sur.
Spudded and S.D.
Southern Oil Co.'s No. 2 Cade, 330 ft. S and 990 ft. E in Sec. 17, Blk. 19, T.P. Sur.
Drlg. 1,307 ft.
Texas Inland Oil Co.'s No. 1 Boaz, 330 ft. from N and W of N 311 acres of S 611 acres, John Wall Sur. No. 272.
Drlg. 2,469 ft.
Texas Inland Oil Co.'s No. 2 Sellers, 640 ft. from N and 200 ft. from W, Wm. Delk Sur. No. 241.
Drlg. 1,840 ft.

LOVING COUNTY

D. C. Evans' No. 1 W. D. Johnson, 2,310 ft. from N and 1,650 ft. from W, Sec. 13, Blk. 57, Twp. 1, T.&P. Sur.
S.D. 2,030 ft.

PECOS COUNTY

Adams et al's No. 1 Schearer.
Location.
Adams et al's No. 1 Masterson.
Location.
California Oil Co.'s No. 24 Yates, 160 ft. from E line and 20 ft. from S line, Sec. 34, Blk. 194, G.C.&S.F. Sur.
Drlg. 1,220 ft.
Cardinal Oil Co.'s No. 17-E Tippett, 150 ft. from E line of W half and 730 ft. from N of No. 5-E, Sec. 40, Blk. 194, G.C.&S.F. Sur.
S.D. 484 ft.
Gulf Prod. Co.'s No. 2 White and Baker, 330 ft. from N and E of Sec. 42, Blk. 194, G.C.&S.F. Sur.
Drlg. 1,135 ft.
Gulf Prod. Co.'s No. 3 White & Baker, SE cor. of N half Sec. 4, Block 207, T.C. Ry. Sur.
Machine.
C. S. Messenger's No. 2 Rand Jones, 1,985 ft. from S line and 1,013 ft. from W line of Sec. 5, Blk. 9, H.&G.N. Sur.
Drlg. 2,085 ft.
Trans-Tex. Oil Co.'s No. 1 Caldwell, 330 ft. from E line and 330 ft. from S line of Sec. 27, Blk. 40, Twp. 9, T.&P. Sur.
S.D. 1,225 ft.

REAGAN COUNTY

E. P. Kirschner and White's No. 1 W. A. White and McIntosh, 720 ft. from E and 800 ft. from N of Sec. 1,223, E.L.R.R. Sur.
S.D. 3,165 ft.
Skelly Oil Co. et al's No. 1-D E. S. Grayson, 1,980 ft. from N line and 660 ft. from W line of Sec. 33, Blk. 3, University Land Sur.
Drlg. 4,972 ft.

REEVES COUNTY

J. E. Cunningham's No. 1 Altman, 2,310 ft. from N line and 1,980 ft. from E line of Sec. 1, C. C. Wyatt Sur.
Drlg. plug 1,560 ft.

RUNNELS COUNTY

Agnew and Currie's No. 1 H. E. Wade, 2,640 ft. from N line and 320 ft. from E line of Sec. 24, Domingo Diaz Sur. No. 532.
T.D. 2,410 ft.; underreaming csg.
Hall Oil Co.'s No. 1 Brevard, 160 ft. N and W in Subdiv. 21, D. Diaz Sur.
Drlg. 2,170 ft.
Melrose Oil Co.'s No. 1 L. P. Woods, 150 ft. from NE lines and 3,475 ft. from W line of survey, Willett Holmes Sur. No. 160.
Drlg. 1,510 ft.
R. Wells' No. 1 James, 396 from N and 820 ft. from E of James tract in Sec. 16, D Diaz Sur.
S.D. 130 ft.

SCHLEICHER COUNTY

John M. Cooper et al's No. 1 Bert Page, 1,290 ft. from N line, 1,470 ft. from W line of Sec. 40, Blk. L, G.H.&S.A. Sur.
Drlg. 5,352 ft.
Humble Oil & Ref. Co.'s No. 1 Ike Honig, 2,640 ft. from N line and 2,650 ft. from E line of Sec. 33, Blk. M, G.H.&S.A. Sur.
Show oil 4,562 ft.; drlg. 5,315 ft.

SCURRY COUNTY

Coffield & Guthrie's No. 1 Holliday, 2,310 ft. from N and 330 ft. from W, Sec. 120, Blk. 97, H.&T.C. Sur.
Machine.

STERLING COUNTY

John I. Moore's No. 1 McIntire, 660 ft. from S and E, Sec. 35, Blk. 33, H.&T.C. Sur.
Drlg. 1,830 ft.

STONEWALL COUNTY

Merry Bros. and Perrini et al's No. 1 Williams, C SW of SW, Sec. 6, Blk. C, A.B. &M. Sur.
Drlg. 2,250 ft.

SUTTON COUNTY

Texas & Hesselman's No. 1 Mower, 1,980 ft. from S and W of Sec. 39, Blk. 5, T.W.& N.G. Sur.
Rigged up standard tools.

TAYLOR COUNTY

Dunnigan Bros. et al's No. 2 Hunter, 850 ft. from S and 250 ft. from W of Subdiv. No. 14, Willis Sur.
Fishing 1,977 ft.

TERRELL COUNTY

W. A. Sudderth's No. 1 Phelps, 2,157 ft. from N line and 2,482 ft. from the W line of Sec. 5, Blk. 4-A, G. W. Turley Sur.
S.D. 5,635 ft.; C.O.

UPTON COUNTY

Gulf Prod. Co.'s No. 12 Crier-McElroy, 1,320 ft. from N and E Sec. 198, Blk. F. Material.
Gulf Prod. Co.'s No. 103 McElroy, 1,980 ft. from S and 660 ft. from W, Sec. 197, Blk. F, C.C.S.D.&R.G.N.G. Sur.
Good show high gravity oil at 10,795-10,840 ft.; drlg. 10,897 ft.
Perry & Breeding's No. 1 Lane, 1,650 ft from S line and 990 ft. from E line of Sec. 36, Blk. 1, M.K.&T. Sur.
T.P. 2,310 ft.; drlg. 2,337 ft.
Williams & Williams Drlg. Co.'s No. 1 Robbins, 1,600 ft. from S and 1,900 ft. from E, Sec. 4, G.C.&S.F. Sur.
S.D. 2,040 ft.

WARD COUNTY

Atlantic Oil Prod. Co.'s No. 1 Miller, 463 ft. from NW and 504 ft. from NE Sec. 3, J. C. Russell Sur.
Drlg. 250 ft.
Alexander's No. 1 Richter, 1,650 ft. from NW, 1,170 ft. from NE line of Sec. 27, Blk. 34, H.&T.C. Sur.
S.D. 1,700 ft.
Bradford et al's No. 1 E. R. Allen, 660 ft. from NW line and 551 ft. from NE line, Sec. 11, H.&T.C. Sur.
S.D. 500 ft.
Cook Drlg. Co.'s No. 1 Wood, 330 ft. from NW and SW, Sec. 5, W. F. Stewart Sur.
Drlg. 2,460 ft.
Plains Prod. Co.'s No. 1 J. J. McGregor, 660 ft. from SE line, 660 ft. from SW line, Sec. 169, Blk. 34, H.&T.C. Sur.
Drlg. 2,878 ft.
Postellio & Caprito's No. 1 Purcell, 330 ft. from NE and 990 ft. from NW, Sec. 17, Blk. 34, H.&T.C. Sur.
Rig up and S.D.
Sageland Oil Corp.'s No. 2 Pure-Bennett, 1,650 ft. from NW and 2,310 ft. from SW Sec. 16, Blk. 34, H.&T.C. Sur.
Spudded and S.D.
Tex-Mex Pet. Corp.'s No. 1 Pure-Bray, 1,980 ft. from NE and 660 ft. from NW, Sec. 6, Blk. 5, H.&T.C. Sur.
Machine.

WINKLER COUNTY

Harry Adams' No. 2 Scarborough, 990 ft. from N line and 990 ft. from W line, Sec. 2, Blk. 77, P.S.L. Sur.
Location.
Jeffries et al's No. 1 Brown & Altman, 2,310 ft. from S and W. Sec. 6, Blk. B-4 Elev. 2,841 ft.; drlg. 995 ft.
J. C. Maxwell's No. 1 Clapp, 1,980 ft. from N and 330 ft. from W, Sec. 37, Blk. 36, P.S.L. Sur.
Elev. 2,846 ft.; drlg. 840 ft.
Magnolia Pet. Co.'s No. 4 Walton, 330 ft. from S and W, Sec. 1, Blk. 26.
Location.
R. S. Mathews et al's No. 1 Evans, 1,320 ft. from N line and 1,320 ft. from W line Sec. 46, Blk. 73, P.S.L. Sur.
S.D. 110 ft.
Mid-Continent Pet. Corp.'s No. 1 Howe, 3,310 ft. from N and 330 ft. from W, Sec. 13, Blk. 26, P.S.L. Sur.
Location.
Sid Richardson's No. 1 Hill, 1,980 ft. from E line, 660 ft. from S line, Sec. 18, Blk. B-11, P.S.L. Sur.
S.D. 3,245 ft.
Sayre Oil Co.'s No. 1 Leck, 330 ft. from S and E, Sec. 2, Blk. 26, P.S.L. Sur.
Location.
Sinclair Prairie Oil Co.'s No. 1 Cummings, 2,310 ft. from N and 330 ft. from E, Sec. 11, Blk. 26, P.S.L. Sur.
Material.

Texas Panhandle Wildcats

Week Ending October 27

CARSON COUNTY

McGill's No. 1 Cooper, 330 ft. from S and W of N½ NE Sec. 4, Blk. 9, I.&G.N. Sur.
Drlg. 250 ft.
Texas Interstate P. L. Co.'s No. 1 Burnett, C N½ Sec. 79, Blk. 5, I.&G.N. Sur.
Drlg. 2,297 ft.

CHILDRESS COUNTY

Humble Oil & Ref. Co.'s No. 1 B. P. Smith, 1,327 ft. from S line and 1,327 ft. from E line of Sec. 27, H.&G.N. Sur., Blk. 9.
Drlg. 5,088 ft.

DALLAM COUNTY

Eben Warner's No. 1 Jarbie, 1,520 ft. from S line, 415 ft. from W line, Sec. 2, B.&B. Sur.
S.D. 3,200 ft.; may abandon.

GRAY COUNTY

Dixon Creek Oil Co.'s No. 1 Benedict, 330 ft. from S and 330 ft. from W, Sec. 114, Blk. 3, I.&G.N. Sur.
T.D. 3,270 ft.; swbd. 200 to 250 bbls. in 12 hrs.
Southwest Prod. Co.'s No. 1 T. Cobb, 1,320 ft. from S line, 990 ft. from E line, NE Sec. 134, Blk. 3, I.&G.N. Sur.
T.D. 2,370 ft.; to deepen.
Texas Co.'s No. 1-C Taylor, 1,325 ft. from N and 1,320 ft. from W, Sec. 52, Blk. B-2, H.&G.N. Sur.
Drlg. 1,265 ft.

HUTCHINSON COUNTY

Brownie Oil Co.'s No. 1 Ware, 330 ft. from N and 330 ft. from W, Sec. 124, Blk. 4, I.&G.N. Sur.
Set csg.; T.D. 1,122 ft.
Huey et al's No. 1 Christian, 220 ft. from S and 330 ft. from W, Sec. 32, Blk. Y, A.&B. Sur.
Drlg. 2,520 ft.; 4,000,000 ft. of gas.

MOORE COUNTY

Phillips Pet. Co.'s No. 2 J. C. Wilson, Sec. 157, Blk. T-3, T.&N.O. Sur.
Drlg. 6,775 ft.
Sunray Oil Co.'s No. 2-A Jones, 330 ft. S and W lines Sec. 164, Blk. 3-T, T.&N.O. Sur.
Drlg. 2,845 ft.

RANDALL COUNTY

English et al's No. 1 Oxnard.
Fishing 5,375 ft.

WHEELER COUNTY

Bell O. & G. Co.'s No. 1 Plummer, 330 ft. S and E of NW Sec. 45, Blk. 24, H.&G.N. Drlg. 610 ft.
Bowers & Carvers' No. 1 L. B. Sims, 330 ft. from N line, 330 ft. from E line of SW Sec. 60, Blk. 17, H.&G.N. Sur.
S.D. 2,166 ft.
Carver Drilling Co.'s No. 1 Rock Island, 1,600 ft. from S line, 2,310 ft. from W line Sec. 47, Blk. 13, H.&T.C. Sur.
Cellar.
Christie-Hickman's No. 1 Walker, 330 ft. S and E of NE Sec. 49, Blk. 24, H.&G.N. Sur.
Material.
Dyke Oil Co.'s No. 1 G. W. Sitter, 330 ft. from N line, 330 ft. from E line, N½ NW Sec. 28, Blk. 24, H.&G.N. Sur.
S.D. 1,220 ft.
Ben G. Barnett's No. 1 Boren, NW cor. NE Sec. 24, Blk. 13, H.&G.N. Sur., 11 miles E and S of Shamrock.
S.D. 1,210 ft.
Johnson et al's No. 1 Grogan, 428 ft. N and 150 ft. W. Sec. 57, Blk. 23, H.&G.N. Sur.
Spudded and S.D.
LeFors Pet. Corp.'s No. 1 Perkins, 330 ft. from S line, 330 ft. from W line, Sec. 54, Blk. 24, H.&G.N. Sur.
Rig up.
Mudge Oil Co.'s No. 1 Dougherty, C SW Sec. 98, Blk. 23, H.&G.N. Sur.
Location.
Reno Oil Co.'s No. 1 Mankins, SW SE SE Sec. 54, Blk. 13, H.&G.N. Sur.
T.D. 2,216 ft.; shut in for P.L. connections.
Smith Bros.' No. 1 Williams, 330 ft. N and E, W½ SE Sec. 49, Blk. 24, H.&G.N. Sur.
Standard tools.

East Central Texas Wildcats

(Continued from Page 40)

HENDERSON COUNTY

Campbell and Chamberlain's No. 1 R. Ansley, 1,724 ft. W and 300 ft. S of SE cor. of M. Matthews Sur., N. H. T. Thompson Sur. S.D. 2,650 ft.

Cesden Oil Co.'s No. 1 Hunt & Miller, 990 ft. from N and 1,340 ft. from W lines of J. D. Hays Sur., 11 miles S of Chandler. Base Pecan 3,392; top Austin 4,335 ft.; base broken Austin 4,600 ft.; drlg. shale 4,635 ft.

Crosby and Pulp's No. 1 M. T. Dobbs, NW cor. of east Dobbs 100-ac. tract, 4 miles E of Malakoff and S of Railroad, George Aldrick Sur. S.D. 3,118 ft.

HOPKINS COUNTY

D. A. Hale et al's No. 1 L. M. Hall, 300 ft. from N and E lines of 70a-c. tract, 1 mile SE of Miller Gros. A. Caro Sur. Drlg. shale 1,200 ft.

Hill & Hill's No. 1 Jones, 2,188 ft. E and 1,746 ft. S of Jasper Williams Sur, 8 mi. SE of Picton. Began Oct. 20; 10¾-in. 202 ft.; top broken Pecan 2,600 ft.; hard 2,605 ft.; drlg. 2,615 ft.; elev. 485 ft.

HUNT COUNTY

G. S. & S. Co.'s No. 1 O. Popper. Shut down.

J. C. Hall's No. 1 Parrish, C of 100-ac. tract N. Delaney Sur., 5 miles N of Lone Oak. Moving in derrick.

L. G. Priest's No. 1 Amelia Barnett, 1,075 ft. from W line, 320 ft. from S line of J. C. Hamer Sur. Top broken chalk 1,452-91 ft.; T.D. 2,013 ft.; broken chalk; S.D.; elev. 607 ft.

Winnans' No. 1 J. R. Phillips, 320 ft. from S line and 960 ft. from W line of tract and survey, W. J. James Sur. Began Oct. 23; 10-in. 40 ft.; W.O.C.

KAUFMAN COUNTY

W. J. Lewis et al's No. 1 D. Clark, 430 ft. from S line and 600 ft. from E line of Sur., 6½ miles NW of Elmo. S.D. 478 ft.

LEON COUNTY

Normangee Corp.'s No. 1 B. H. Henry, 1,850 ft. from E line and 2,700 ft. from N line of survey, Robert Rogers League, 2½ miles NE of Normangee. Fishing 2,735 ft.; claim 15 ft. sand with show of oil and gas.

LIMESTONE COUNTY

Doughtry et al's No. 1 S. Welch, 150 ft. from NW and 900 ft. from NE of 77.64-acre tract in A. Varilia Sur., 4 miles W of Groesbeck. Rigged up.

Schultz' No. 1 Roy Ward, NE cor. of 73.3-ac. tract, 5 miles W of Mexia Field, Harrison York Sur. Derrick.

V. V. Waite's No. 1 Barrow, 650 ft. from S and 950 ft. from E line of 320-ac. tract, W. G. McKenzie Sur., 3½ miles NW of Thornton. Pits.

MORRIS COUNTY

McGinnis et al's No. 1 Staggers, 800 ft. from S line of survey and 150 ft. from W line of lease, J. B. Nelson Sur. S.D. 2,972 ft.

Flutborn Oil Corp.'s No. 1 Hammond, 3,500 ft. S and 1,750 ft. W of Thos. Burford Sur., 8 miles SE of Omaha. Material.

NACOGDOCHES COUNTY

Murray Oil Co.'s No. 1 C. B. Watkins, 150 ft. from N line and 330 ft. from NW lines of 160-ac. tract, 3 miles S of Care, H. Y Bailey Sur. S.D. 3,815 ft.; shale and streaks chlk.

NAVARRO COUNTY

Bennett Brothers' No. 1 T. E. Stewart, 150 ft. from NE line of lease, 10 miles SW of Corsicana, Wm. R. Bowen Sur. S.D. 1,186 ft.

R. B. Cocding et al's No. 1 Lela Kelt, 450 ft. from S line and center of N and S lines of lease, 3 miles NE of Chatfield. C. B. Emmons Sur. S.D. 1,546 ft.

W. J. Keeling et al's No. 1 J. F. Rushing, 484 ft. from N line and 150 ft. from W line of 184-ac. tract, 6 miles SW of Richardson, Henry Ford Sur. T.D. 2,880 ft.; tried to run Schlumberger; mud too heavy; S.D.

McCullough et al's No. 1 C. Berry, 330 ft. from SE cor. of 35-acre tract, 1 mile W of Dawson, William Moss Sur. S.D. 625 ft.

J. B. Stoddard, trustee's No. 1-A C. S. West, 150 ft. out SE Blk. No. 30, or 1,900 ft. from northerly N line and 3,750 ft. from westerly E line of survey, M. Boren Sur., 2 mi. S of Richland. From 520-40 ft. had sand carrying S.W. and show gas; T.D. 615 ft.; milling.

Syam Oil Co.'s No. 1 Mrs. Ray, 965 ft. E along N line from NW cor. Stevenson 101-acre tract and 305 ft. N at right angles, 3 miles SW of Rural Shade. Top Woodbine 3,450 ft.; made two D.S. tests; first dry; second tested 300 ft. mud; coring 3,537 ft.; shale.

RAINS COUNTY

Wadley et al's No. 1 P. F. Jones, 400 ft. out of SW cor. of 22-ac. tract, 2½ miles S of Alba, B.B.B.&C. Sur. T.D. 4,730 ft.

Rio Oil Co.'s No. 1 Johnson, 330 ft. N and W of 39 ac. tract, R. Hitchkiss Sur., 4½ miles E of Emory. Top brown Austin 3,474 ft.; hard 3,485-3,728 ft.; reaming to deepen; T.D. 4,158 ft.; shale.

RED RIVER COUNTY

Abercrombie & Harrison's No. 1 Emma Watson, 4,850 ft. from W line and 4,550 ft from N line of survey, E. H. Tarrant Sur Moving in rig.

Bryant and Speer's No. 1 Jones, 300 ft. W and 150 ft. N of 67-ac. tract, J. Compton, 8 miles SE of Emory. Location.

RUSK COUNTY

Fair, et al's No. 1 J. W. Needham, 335 ft. from W line and 700 ft. from N line of tract and survey, 10 mi. S of Henderson, on 135-ac. tract, J. W. Chambers Sur. Began Oct. 15; 10-in. 110 ft.; drlg. 1,750 ft.; D.S. test 1,630-70 ft.; ¾-in. tested 200 ft. S.W. and mud in 20 min. with show of gas; core 1,632-35 ft. and 1,635-38 ft.; both shale, thin streaks of fine sand with dark brownish oil in sand.

Headwater Oil Co.'s No. 1 F. L. Gary, 375 ft. N of S line and center of E and W lines of 200-ac. tract, 3 miles E and S of Henderson, Jose A. Mora Sur. S.D. 3,197 ft.

George Hudson et al's No. 3 Jeff Phillips, 150 ft. from N line of survey and 700 ft. from W line of 100-ac. tract, 4 miles SE of Minden, N. Villaria Sur. Swbng.; no shows; P.B.

Ben Lamb's No. 1 H. Leath, 330 ft. out of NW cor. of 135-acre tract in L. J. Dooley Sur., 2½ miles E of Pirtle. Drlg. sandy shale 1,700 ft.

SMITH COUNTY

Bond & Dillard's No. 1 J. W. Mallory, 335 varas W of E line and 400 varas S of most northerly N line of tract and survey, Wm. H. Mills Sur., 3 mi. N of Jamestown.

Deck et al's No. 1 Dendall, 330 ft. from S and W of 55-ac. tract, J. Williams Sur., 3 miles E of Van Field. Spudded and S.D.

Fair et al's No. 1 Rushing, 1,000 ft. SE of old hole, 1½ miles SE of Whitehouse. Top Woodbine 4,296 ft.; ran Schlumberger to 4,605 ft.; T.D. 4,609 ft.; S.D.

Nenny et al's No. 1 J. I. Coulter, 1,217 ft. E of W line and 865 ft. N of S line of 100-ac. tract, Maria Gestrada Sur., 2 mi. NW of Sand Flat. Location.

Paul S. Williams et al's No. 1 Dean, 320 ft. E and 730 ft. N of 100-acre tract in Denson Moore Sur., 1 miles NE of Bullard. Spudded and S.D.

UPSHUR COUNTY

Virgil Hodges et al's No. 1 J. M. Floyd, 330 ft. from NE cor. of 126-ac, tract, 4 miles N of Gladewater, Railroad Sur. Comp.; Oct. 7; T.D. 3,764 ft.; S.W. and abd.

Lanier and Moore's No. 1 Vaughan, 230 ft. from S line and 330 ft. from W line of 100-ac. tract, 2 miles NW of Big Sandy, P. W. Standifer Sur. Comp.; dry and abd.

VAN ZANDT COUNTY

Pet. P. L. & Storage Co.'s No. 4 Mrs. S. McGee, 450 ft. S of N line and 155 ft. E of W line of 52.4-ac. tract, Blk. 20, Elevation 441 ft. Rigging up.

Pete Corley et al's No. 1 Slaton, 160 ft. from W and 660 ft. from N lines of William Carlton Sur., 3 miles SE of Ben Wheeler. Rig.

Gillum and Allen et al's No. 1 A. T. Bass, 150 ft. from W line and 150 ft. from N line of 10-ac. tract, William Hart Sur. 10-in. 120 ft.; drlg. at 1,100 ft. in second hole.

Green and Winn's No. 1 Eaton, 330 ft. out of most westerly SW cor. of J. Wilson Sur., 2 miles SE of Martin. Location.

Hodges & Schwartz's No. 1 McKinsey, C of N and S lines and 150 ft. from W of 106-ac. tract, Wm. Daniels Sur. S.D.; 20 ft. oil in hole.

Martin & Evans' No. 1 Bryant, 483 ft. N of same operators' dry hole, Nacogdoches County School Land Sur. Rigged up.

Miller et al's No. 1 J. M. Palmer, 150 ft. from S and E lines of 69-ac. tract, Nacogdoches County School Land Sur. Shut down.

Peden and Olson's No. 1 J. M. Palmer, 200 S of No. 2 and 140 ft. from W line of tract, J. Goodman Sur. W.O.S.R.

M. Rouch et al's No. 1 Bearden & Palmer, 150 ft. out of SE cor. of 61-ac. tract. Nacogdoches C.S.L. Prep. to test; 7-in. 1,175 ft.

WOOD COUNTY

Alex Snyder et al's No. 1 T. Holmes, 200 ft. out of NE cor. of 122-ac. tract, 1¼ miles SE of Hawkins, A. N. McKnight Sur. 399. Coring red beds 5,155 ft.; elev. 338 ft.

Southwest Texas Wildcats

(Continued from Page 37)

T.D. 3,475 ft.; comp. flowing 25 bbls. hrly.

Mills Bennett Prod. Co.'s No. 1 D.C.R.C., 150 ft. N, 4,200 ft. E line of Sur. 192. Drlg. 810 ft.

Stieren Oil Co.'s No. 1 J. P. Philp, 1,650 ft. S line, 990 ft. E line, Sur. 320. Drlg. rock 170 ft.

W. B. Stewart's No. 1 Juan Benavides, 3,752 ft. S of the most southerly N line and 330 ft. from SW line of Sur. 355. Drlg. 2,765 ft.

Texas Co.'s No. 1 G. W. Sutherland, making location in Sur. 503. Drlg. 2,765 ft.

Texas Co.'s No. 1 Tom Graham, 5,065 ft. N 65 deg. E and 1,130 ft. S 25 deg. E, W cor. Geo. Reynolds Sur. 572. T.D. 5,410 ft.; P.B. to 4,768 ft.

EDWARDS COUNTY

Carter et al's No. 1 W. A. Miers, 990 ft. from N and E lines of Sec. 6, C.C.S.D.& R.G.N.G. Sur. S.D. 402 ft.

Will Olhausen's No. 1-B Turney, 660 ft. from W line, 1,622 ft. from N line of Sec 176 C.C.S.D.&R.G.N.G. Sur. T.D. 495 ft.; sand 225-40 ft. and 405-07 ft.; csg. 405 ft.; S.D.

H. H. Sides' No. 1 Turney, C.C.S.D.&R.G.N. G. Sur. No. 164, 1,320 ft. N line and W line of survey. Standing 1,010 ft.

Harry Adams' No. 1 Holman, 1,650 ft. N line, 330 ft. from E line, Sec. 22, C.C.S.D. R.G.&N.G. Sur. Standing.

FAYETTE COUNTY

Texas Seaboard Oil Co.'s (J. Elmer Thomas and Henshaw Bros.') No. 1 Gleckler, 330 ft. SW and SE of N cor. of 98.5-ac. tract in Anna Powell League. T.D. 4,000 ft.; to make Schlumberger test.

FRIO COUNTY

Amerada Pet. Co.'s No. 2 Halff & Oppenheimer, begin at most easterly N cor. of John H. Gibson Sur. No. 16, thence SE along NE line of Sur. 2,100 ft., thence SW at right angles 800 ft. (4 mi. SW of Pear sall). Drlg. 9,775 ft.

GILLESPIE COUNTY

Ed L. Nixon's No. 3 Lindig, 12,694 ft. S line, 1,332 ft. W line, Maria Josepha Guerra Sur. No. 41, or 6 ft. S of No. 1. Fishing 516 ft.

GOLIAD COUNTY

Oceanic Pet. Co.'s No. 1 Fromme, 1,500 ft S line, 1,200 ft. W line of 62-ac. tract in P. D. Dexter Sur., 10 miles N of Goliad T.D. 2,686 ft.; to set csg.

Jack Porter's No. 1 Mrs. N. Meyers, NW cor. of 404.54-ac. tract, 1¾ miles SW of Huisache. Drlg. 3,600 ft.

GONZALES COUNTY

Weinert et al's No. 1 A. Kallies, 3,340 ft. S line and same N of river and 150 ft. E line of tract, Ira Nash Sur. T.D. 3,860 ft.; preparing to resume drlg.

GUADALUPE COUNTY

Danvers-Harrison et al's No. 1 Guerra (Delamater), 330 ft. out of SW cor. of 40-ac. tract, Blk. 12, Por. 41. Rig.

Diamond Half Oil Co.'s No. 1 Wm. Maiserhofer, 506 ft. from E line and 1,500 ft. from N line of 51.85-ac. tract in L. H. Peters Sur. Drlg. chalk 1,975 ft.; topped chalk 1,962 ft.

L. E. Trout's No. 1 McKee, Green DeWitt Sur., SW Darst Creek. S.D. 1,200 ft.

HIDALGO COUNTY

Davis & Harrison's No. 1 Lula George, 300 ft. from S and 700 ft. from E lines of Tract 13, Porcion 41, Ancient Jurisdiction of Reynosa. T.D. 4,135 ft.; resumed work.

John Deering et al's No. 1 John C. Engleman, 400 ft. S and W lines, Lot 3, Blk. 79, Mestenas tract. Cmtd. surface csg. 600 ft.

Union Sulphur Co.'s No. 3 American Rio Grande L. & I. Co., 400 ft. from S and E lines of tract, Blk. 86, North Capisallo district. No report.

JIM HOGG COUNTY

John D. Norwood's No. 1 C. W. Hellen, 330 ft. N and W lines, Sur. 48. T.D. 1,260 ft. (corrected); gas sand 1,044 ft.

J. M. Shugart's No. 1 R. Holbien, 100 ft. from N line, 330 ft. from S line of Blk. 55, Sur. 17 of Holbien Subd., of Las Animas grant. Location.

JIM WELLS COUNTY

Plymouth Oil Co.'s No. 1 Cuero Cattle Co. 330 ft. from S and W lines of H.T.&B Sur. No. 7, 2½ miles W from Alfred. No report.

Smith & Storey's No. 1 Martha E. Ellworth, 330 ft. N and W from SE cor. of W half of W 426 acres of Stanley Welch Sur. Drlg. 5,045 ft.; gas sand 4,945-66 ft.; to run Schlumberger test.

KARNES COUNTY

California Oil Co.'s No. 1 J. C. Tom, Jr., 466 ft. each way from NW cor. of 6,525-ac. tract, Maria-De Jesus Y. Barbo grant. Drlg. 3,010 ft.

F. P. Hynes et al's No. 1 Swiercy, 2,650 ft. from NW line, 500 ft. from SW line of 100-ac. tract in Gasper Flores Sur. Drlg. sand 936 ft.

R. E. Ceseaux et al's No. 1 Tom Campbell, 330 ft. S and E cor. of farm and survey J. R. Backer Sur., 12¼ miles SW of Falls City. S.D. 1,254 ft.

KENDALL COUNTY

Walter Bradley's No. 1 Werner, John P Torrey Sur. S.D. 919 ft.

W. R. Shanklin's No. 1 Seidenstick, 1,836 ft. from most easterly E line, 100 ft. from most northerly S line of Antonio Rodegues Chacon Sur. 257. S.D. 400 ft.

KERR COUNTY

Edmiston Oil Corp.'s No. 1 Whitworth, 1,160 ft. from S line and 1,333 ft. from E line of Sec. 1,439 of the H.E.&W.T. Sur. S.D. 675 ft.

Herbert Oil Co.'s No. 1 J. D. Witt, 13,200 ft. from N line, 1,200 ft. from W line of Sec. 1,923, Hamilton Sur. S.D. 1,896 ft.

Jeff Love and Eastland Oil Co.'s No. 6-E Jeff Love, 1,500 ft. SE of No. 1 and 1,580 ft. from SE cor. and 300 ft. from N line of Sec. 1,591. T.D. 3,465 ft.; waiting on orders.

J. F. Morrissey et al's No. 1 F. A. Karge, 1,400 ft. from S line and 600 ft. from E line of survey, Sec. 1, B.S.&F. Sur. T.D. 1,465 ft.; S.D. for csg.

G. F. Schreiner's No. 3 Jeff Love, 1,444 ft. from W line, 1,194 ft. from S line of Sur., 660 ft. N and 100 ft. E of Evans & Gants' No. 1 Love, Martinez Sur. 1,594. Location.

LaSALLE COUNTY

Standard Oil Co. of D. C.'s No. 1 J. M. Martin, 300 ft. S and W lines of 643-ac. farm in Sur. 683. Drlg. 2,160 ft.

LEE COUNTY

Jas. E. Pederson's No. 1 Turner, David Hudson Sur. Running csg. 6,330 ft.

LIVE OAK COUNTY

Coquat's No. 1 Wade McNeil, 1¼ miles NW McNeil discovery well. Spudded in and set surface csg.

W. H. Helmerich's No. 1 Cartwright, 660 ft. from W line, 330 ft. from S line of Lot 16, Seale, Morris & Seale Sur. Location.

Henderson Coquat et al's No. 1 Robertson. Sec. 314. Standing 2,700 ft.

Henderson Coquat et al's No. 1 Little, 1,320 ft. NE of S cor. of M. M. Shipp Sur. and 330 ft. N of S line. T.D. 500 ft. (corrected); S.D.

McMULLEN COUNTY

Armoil Prod. Co.'s No. 1 K. Martin, Sur. 483. Location.

Beer-Witherspoon's No. 1 Essell, 330 ft. from N and W lines of 40-ac. tract in Fant & Fadden Sur. Drlg. 1,152 ft.

Boling's No. 1 Brown, 1,500-ac., NW Crowther field. Location. Contract calls for 1,000 ft. test.

H. K. Boysen's No. 1 Hagist, 990 ft. S, 330 ft. W of NE cor. Sec. 10, H.&T.C.R.Y. Sur. Drlg. 100 ft.

Circle W Oil Co.'s No. 1 Wheeler, NW cor. Sec. 44, of Two Rivers Ranch Subd. Coring 1,165 ft.

Choate & Noble's No. 1 Miles, 330 ft. from S line, 2,750 ft. from E line of 1,350-ac. tract in Stephens Sur. Location.

Encino Oil Co.'s No. 1 Walker, 1,200 ft. from N and W lines of 2,569-ac. tract, Sur. 128. Abd. 2,110 ft.

W. W. Kelley's No. 1 Tom Walker, cor. of Surveys 106, 182, 23 and 104. Rigging up.

C. C. Shumway's No. 8 Shiner. Rig up.

Charles Wuest's No. 1 Fisher, Roderick O'Boyle Sur. Derrick.

Hy Yound's No. 1 Callihan, James Gardner Sur., NW cor. Blk. 4, Sec. 6. Derrick.

MEDINA COUNTY

C. M. Peacock's No. 1 Odem, 160 ft. from W line, 200 ft. from S line of Castro Sur. No. 173-174. Location.

Scoggins & Sanders' No. 1 L. W. Burrell, 150 ft. from E line, 1,750 ft. from N line of M. E. Gage Sur. 395. Drlg. 1,780 ft.

NUECES COUNTY

Buff Pet. Co.'s No. 1 Vincent Bluntzer, 660 ft. N line, 660 ft. E line of Share 7 of Bluntzer Subd. Rigging.

Clymore Oil Co.'s No. 1 Palo Alto Farms, 2,640 ft. from N and E lines of Sec. 189 of Bishop Subd. Derrick.

Texon Royalty Co.'s No. 1 Robert Driscoll, 330 ft. from N line, 5,697 ft. from W line of 880-ac. Driscoll tract and E of Simmons & Perry tract. Rig up.

REAL COUNTY

M. J. Heartwell et al's No. 3 L. J. Haby, 694 ft. from W line and 2,153 ft. from S line of A.B.&M. Sur. No. 176. T.D. 2,850 ft.; P.B. to 1,800 ft.; preparing to D.D.

SAN PATRICIO COUNTY

Allied Minerals' No. 1-A Ramsey, 466 ft. E, 230 ft. N of SW cor. of the North B Giddings Sur. on a 1,000-ac. tract. Drlg. sticky shale 2,107 ft.

Lonnie Glasscock's No. 1 M. F. Timmons, 330 ft. out of SE cor. of Blk. 37, San Patricio townsite. Drlg. 1,800 ft.

Gum Hollow Oil Co.'s No. 1 J. G. Willacy, 2 mi. W Portland. Drlg. 5,800 ft.

STARR COUNTY

Cooper & Andrews' No. 1 J. M. Martinez, SW cor. Sec. 135. Location.

C. R. Borah's No. 1 A. Guerra, San Jose grant, 330 ft. from N and 150 ft. from E line of Sec. 6 (NE part of county). Drlg. 2,125 ft.

E. P. Evans' No. 1 Kelsey Bass, 330 ft. N of State Highway 4, Sec. 7, Subd. Porcions 75,76 and 77. Drlg. 1,450 ft.

C. L. Smith et al's No. 1 J. M. Longfellow, 330 ft. out of NW cor. of Sur. No. 381. Drlg. 1,200 ft.

Heep Oil Co.'s No. 1 Guerra, 330 ft. from NE and SE lines of Blk. 35, J. N. Crawford Subd., Porcion 56, Jurisdiction of Mier. Location.

Smith & Weston's No. 1 M. M. Garcia, Blk 9, Sur. 908. Location.

Sun Oil Co.'s No. 1 Gonzales & Clark, 600 ft. out of NW cor. of NE Sec. 372, T.T Ry. Sur. No. A-778. Drlg. 3,040 ft.

United Prod. Co.'s No. 1 Guerra, 36, 170 ft. from NE line, 1,521 ft. from NW line of Porcion 55. Drlg. gray shale 950 ft.

E. L. Younkin's No. 1 Kelsey Bass, 330 ft. from S line, 7 ft. from W line of Blk. 18, in Porcion 87. Drlg. 1,965 ft.

TRAVIS COUNTY

Marts & Beavens' No. 1 Emil Bloomquist, 150 ft. from NW line and SW line of

99½-ac. tract in Peter C. Harrison Sur S.D. 1,300 ft.

UVALDE COUNTY

Humble Oil & Ref. Co.'s No. 1 R. L. Anderson, 7,450 ft. SW of NE line and 9,100 ft. SE of NW line of J. J. Guerra Sur. (3 mi. NE of Uvalde).
Drlg. 4,665 ft.

T. T. Word's No. 1-B Truelove, 45 ft. E of No. 1-A.
Drlg. 1,945 ft.

WEBB COUNTY

W. W. Lincoln's No. 1 M. B. Volpe, 3,800 ft. N, 150 ft. W line of Sur. 2,011.
Drlg. 1,765 ft.

W. P. Morris' No. 1 A. M. Bruni, 994 ft. NW line, 943 ft. NE line, Blk. 66, G. M. Brown Subd, Saltea pasture, in J. V. Borrego grant.
Sand 1,305-55 ft.; S.D. 1,385 ft.

Fidelity Exploration Co.'s No. 1 Soldivar 1,300 ft. from E line, 2,600 ft. from N line of Sur. 657.
Temp. S.D. 3,025 ft.

WILLACY COUNTY

W. W. Silk's No. 1 Stillman, Lot 16 Blk 30, Santa Rosa Subd., Share 44.
T.D. 1,980 ft. (corrected).

WILLIAMSON COUNTY

Johnson & Ray's No. 1-A Mary Smith Oxford, 350 ft. S, 40 deg. E of No. 1, Williams Sur.
T.D. 610 ft.; S.D.

Mann & Roez et al's No. 1 F. Roez, John Bevil Sur. 56.
Drlg. 998 ft.

T. J. McConnell's No. 1 J. R. Nazier, 150 ft. from S line and San Gabriel River and 150 ft. from E line of 124-ac. tract in Zarzo Sur.
T.D. 675 ft.; standing in chalk.

J. A. Morgan Russell's No. 1 Nelson Est. 150 ft. S line and 1,115 ft. E line of J. L. Justin No. 2 Sur., 5 miles S of Georgetown.
T.D. 755 ft.; S.D.

Stalley & Caffy's No. 1 A. J. Nelson, 850 ft. from SE line and 150 ft. from NE line of Barney C. Love Sur.
Drlg. 315 ft.

WILSON COUNTY

Ray Oil Co.'s No. 1 J. M. McDaniel, 1,700 ft. from SW line, 350 ft. from NW line of 193.5-ac. tract in Concepcion Bostello Sur. No. 9.
Rigged up and S.D.

J. C. Yancey's No. 1 Lyssy, 300 ft. from SE and SW lines of lease in D. J. Holt Sur.
T.D. 1,600 ft.; S.D. in shale.

ZAPATA COUNTY

C. C. Crews' No. 1 M. D. Slator, 2,111 ft. from SW line, 1,980 ft. from SE line of Blk. 1, Mission Oil Co. Subd. of Slator ranch, Borrego grant.
T.D. 1,739 ft.; standing.

Danvers & Harrison's No. 1 M. J. Vela, 694 ft. NE line and 300 ft. NW line, or 2,140 ft. E line and 330 ft. N line of Por. 39, Blk. 7, Bela Subd.
T.D. 1,603 ft.; washing to bottom.

J. W. Edwards' No. 1 D. A. McAskill, 150 ft. from N and E lines of Blk. 63, J. W. Edwards Subd. of 4,069.6-ac. tract out of Corralitos Subd. of the J. V. Borrego grant.
Drlg. 1,160 ft.

Merle Gunby's No. 3 Alice D. Haynes, 200 ft. SE and NE lines, Blk. 9, Haynes Subd., Comitas and Villa grant.
Drlg. 1,370 ft.

H. & M. Drlg. Co.'s No. 1 Slater, 614 ft. from SW line, 150 ft. from SE line, Blk 65, J. B. Barrego grant.
T.D. 22 ft.; standing.

H. V. & W. Oil Co.'s No. 1 Cuellar, 150 ft. NE line and 450 ft. SE line of Blk 3, Sur. 3, Pappas Subd., Por. 34.
T.D. 1,125 ft.; standing.

Howell Muckelroy's No. 1 Filemn Flores, 77 ft. from SE line on NE line Lot 1, Blk. 30, Por. 37.
Derrick.

Joe Palmer's No. 11 S. Vela, 330 ft. from NE and SE lines of Blk. 170, Share 4 of L. Grillo grant (3 mi. E of Redondo Pool)
Drlg. 1,350 ft.

E. P. Wells' No. 1 S. E. Garcia, 150 ft. from N and E lines of 200-ac. tract in Peternal grant.
Moving in rig.

Southwest Texas Proven

Week Ending October 27

NORTH CEDAR CREEK—BASTROP COUNTY

Muenrio Oil Co.'s No. 1 E. M. Pruitt, 2,418 ft. NE line, 330 ft. SE line of J. A. Navarro Sur.
Spudded in.

NORTH DALE POOL—BASTROP COUNTY

Cole Pet. Co.'s No. 1 Rubin Gage, NE cor. of tract, 150 ft. each way from corner.
Location.

Cole Pet. Co.'s No. 6-B American Natl. Bk., 150 ft. NE and SE lines of 700-ac. tract, Gage Sur., Blk. 31.
Coring 1,874 ft.

Joe E. Mills' No. 1 Mrs. W. J. Cardwell, 900 ft. from SE line, 1,200 ft. from SW line of tract, J. A. Navarro Sur.
Rigging up and S.D.

Joe E. Mills et al's No. 1 Wm. Litton, 626 ft. from SE line, 850 ft. from SW line of 320-ac. tract in Navarro Sur.
T.D. 1,753 ft.; 6⅝-in. at 1,696 ft.; testing sand 1,717-27 ft.

CAESAR—BEE COUNTY

Luling O. & G. Co.'s No. 4 Ruhman, 150 ft. from S line, midway between E and W lines of Blk. 13.
T.D. 3,062 ft.; cmtd. csg.

NORTH PETTUS FIELD—BEE, GOLIAD AND KARNES COUNTIES

Houston Oil Co.'s No. 7-B Niehaus, 660 ft. SE of No. 4-B, Talley Sur.
Location.

Houston Oil Co.'s No. 9-B Niehaus, 660 ft. SE of No. 6-B, B.S.&F. Sur.
Location.

United Prod. Co.'s No. 47 Ray, 300 ft. NW from SW cor. of Houston Oil Co.'s Neihaus "B" lease along Neihaus-Ray property line, thence 330 ft. in SW direction at R/A to previous course.
Drlg. broken lime 2,383 ft.

H. H. Weinert et al's No. 3 Grady Smith.
Rigging up.

TULETA—BEE COUNTY

E. M. Jones' No. 1 Skinner & Harris, 330 ft. from N and W lines of E 80-ac. of NW of Sec. 10 Ragsley Subd. of Uranga grant.
Location.

Mills Bennett's No. 1 Harris, 330 ft. out of SE cor. NW Sec. 9, Ragsley Subd., Uranga grant.
Top Pettus sand 3,872 ft.; cmtd. csg.; T.D. 3,922 ft.

Mills Bennett's No. 1 Tuleta Mercantile Co., 330 ft. from N and W lines of SW Sec. 10. Moving in.

Whisenant & Trenchard's No. 1-Rapp C N½ NW NE Sec. 10.
T.D. 3,933 ft.; W.O.C.

Wrightsman Oil Co.'s No. 1 Unzicker, 330 ft. from S and E lines of quarter Sec. 6, Ragsley Subd., Uranga grant.
Location.

VON ORMY—BEXAR COUNTY

W. L. Umburn's No. 1 Bilhartz, in SW cor. of tract, offsetting Strumberg well. F. Rolen Sur.
Drlg. 1,795 ft.

DALE—CALDWELL COUNTY

W. B. Hinton's No. 1 Osteen, 150 ft. SW line, 450 ft. NE line of 70-ac. tract in Swearinge Sur.
Moving in rig.

EAGLE HILL—DUVAL COUNTY

Tide Water Oil Co.'s No. 1 J. R. Foster, 1,650 ft. from S line and 165 ft. from E line of Sur. 200.
T.D. 100 ft.; set surface csg.

GOVERNMENT WELLS POOL—DUVAL COUNTY

Brown & Nessly's No. 3 Runnels, 330 ft. S line, 990 ft. W line of NE NW Sur. 62.
Location.

Central Producers, Inc.'s No. 3 Luptack, 950 ft. S line, 1,450 ft. E line of Sur. 41.
Setting 7-in. csg. in Cole sand.

Edgington & Murry's No. 2 Winch & Henne, 330 ft. from E line, 990 ft. from N line, Blk. 15, Sur. 250.
T.D. 2,376 ft.; W.O.C.

Feliz Oil Co.'s No. 2 Norton, 330 ft. S and W lines of S half SW, Sur. 62.
Sand 2,371-74 ft.; 7-in. csg. 2,371 ft.; I.P. 50 bbls. pumping; comp.; T.D. 2,380 ft.

Government Wells Oil Corp.'s No. 5 State, 330 ft. from N line, 990 ft. from W line of Sur. 60.
T.D. 2,222 ft.; testing.

Government Wells Oil Corp.'s No. 6 State, 330 ft. from N line, 1,650 ft. from W line of Sur. 60.
Location.

K. P. Hasselman's No. 3 Moody, 220 ft. from W line, 150 ft. from S line of S half SW of Sur. No. 60.
Rig up.

Humble O. & R. Co.'s No. 35 Hahl, 330 ft. N line, 2,310 ft. W line of E½ of Sur. 360.
T.D. 107 ft.; I.P. 40 bbls. hr. on ½-in. choke.

Humble O. & R. Co.'s No. 49 Paul White, 990 ft. E line, 330 ft. N line of Sur. 50.
T.D. 119 ft.; set surface csg.; W.O.C.

Magnolia Pet. Co.'s No. 2 Hahl-Norton, 2,310 ft. from S line, 330 ft. from W line of Sur. 61.
T.D. 2,316 ft.; flowing 8 bbls. per. hr.

Magnolia Pet. Co.'s No. 3-C Hahl, 330 ft. S and E lines of Sur. 61.
Rigging up.

Magnolia Pet. Co.'s No. 8 Hahl-Southerland, 330 ft. S line, and W line of NW, Sur. 61.
Rigging up.

Magnolia Pet. Co.'s No. 3 Hahl-Norton, 330 ft. S and W lines of Sur. 61.
Rig.

Magnolia Pet. Co.'s No. 2 Hunt, 330 ft. S line and 250 ft. W line, SE of Sur. 46.
Derrick.

Magnolia Pet. Co.'s No. 10 D.C.R.C., 670 ft. from E line, 2,310 ft. from S line, Sur. 59.
Sand 2,183-90 ft.; 7-in. csg. 2,183 ft.; com.; I.P. 150 bbls.; ¼-in. choke; T.D. 2,230 ft.

Magnolia Pet. Co.'s No. 14 D.C.R.C., 990 ft. E line, 1,650 ft. S line of Sur. 59.
T.D. 2,194 ft.; W.O.C.

Magnolia Pet. Co.'s No. 10-A C. W. Hahl, 330 ft. S and W lines of S½ SE Sur. 45.
T.D. 2,300 ft.; coring.

Magnolia Pet. Co.'s No. 38 D.C.R.C., 990 ft. W line, 1,650 ft. S line of Sur. 209.
T.D. 2,322 ft.; W.O.C.

Magnolia Pet. Co.'s No. 10 J. W. Riley, 330 ft. S and E lines of SW of Sur. 45.
Sand 2,263-71 ft.; 7-in. csg. 2,263 ft.; T.D. 2,271 ft.; comp.; I.P. 9 bbls. per hr.

Magnolia Pet. Co.'s No. 9 J. O. Wilson, 330 ft. N and W lines of Sur. 134.
Sand 2,343-75 ft.; set 7-in. csg. 2,343 ft.; I.P. 100 bbls. pumping; T.D. 2,375 ft.

Russ Pet. Co.'s No. 2-C Hahl, 990 ft. N and W lines of S½ SW Sur. 62.
Sand 2,338-50 ft.; 7-in. csg. 2,338 ft.; T.D. 2,350 ft.; W.O.C.

Smith & Storey's No. 11 Lundell, 330 ft. S and W lines of Sur. 2.
Drlg. 2,000 ft.

Sun Oil Co.'s No. 73 Weiderkehr, 660 ft. S of No. 70 on 3,035-ac. tract in Sur. 359.
Rig.

Sun Oil Co.'s No. 74 Weiderkehr, 990 ft. N line, 1,650 ft. W line of Sur. 359.
Location.

Trapshooter Reilly's No. 3-B C. W. Hahl, 330 ft. S line, 750 ft. E line of Blk. 27, Sur. 250.
Rigging up.

PIEDRAS PINTAS—DUVAL COUNTY

Tom Graham and Texon Royalty Co.'s No. 3 Parr, 2,170 ft. N line, 2,250 ft. E line, 150 ft. S of No. 1, Sur. 185.
Skidding.

LUCAS—LIVE OAK COUNTY

Lion Oil & Ref. Co.'s No. 2 McNeil, J. Curry Sur., 660 ft. N of No. 1.
Coring sand 5,082 ft.

Houston Oil Co.'s No. 28 Cartwright, 1,000 ft. S of No. 27, and 112 ft. E of railroad.
Drlg. 2,700 ft.

DARST CREEK—GUADALUPE COUNTY

Grayburg Oil Co.'s No. 1 Mrs. S. M. Roamel, 491 ft. N line, midway between W and E lines of 50-ac. lease.
Drlg. 1,750 ft.

SAM FORDYCE—HIDALGO COUNTY

Alamo Drlg. Co.'s No. 1 Ed Sullivan, 150 ft. from N and W lines of 3.25-ac. tract in Tract 283-284, Por. 39, 1,700 ft. SE of No. 1 Lawrence.
Abd. 3,009 ft.

Blocker & Lucky's No. 1 F. B. Guerra, 330 ft. from S and W lines of W½ of E 20-ac., Share 254, Por. 39.
T.D. 2,762 ft.; I.P. 35 bbls. per hr.; ¼-in. choke; 200 lbs. tubing pressure; 700 lbs. csg. pressure.

Circle W Oil Co.'s (Navarro) No. 1 Seabury, George & Taylor, 330 ft. S and E lines of SE 51-ac. tract in Tract 256, Por. 38.
Material on ground.

Clements et al's No. 1 F. B. Guerra, Tract 254, Por. 39.
T.D. 2,800 ft.; W.O.C.

Jack Clements' No. 1 Felipe Farias, 150 ft. from N and E lines of Share 273, Por. 39. Reynosa.
Derrick.

Danvers-Harrison & Davis' No. 1 Dr. Austin, center of E 7.2-ac. of S 14.4-ac. in Share 282, Por. 39.
Location.

Edwards & Olford's No. 1 E. Flores, 330 ft. N line, 126 ft. E line of Tract 267, Por. 38.
Spudded in.
330 ft. from N and W lines of W 19.04-ac., Share 274, Por. 39.
Location.

Porter Evans' No. 1 David Flores, Tract 262, Por. 38.
Spudded in.

Heep Oil Co.'s No. 1 W. R. Jackson, 344 ft. E and W lines, Tract 278, oPr. 39-40.
Moving in materials.

Heep Oil Co.'s No. 1 Guerra, 330 ft. from W line, 185 ft. from N line of 25-ac. tract in Por. 40.
Spudded in.

Heep Oil Co.'s No. 1 T. de Flores, Tract 284, Por. 39, 1,500 ft. SE of discovery well.
T.D. 3,108 ft.; abd.

Moncrief & Showers' No. 1 F. B. Guerra, 330 ft. from N and E lines of NE of W 40 acres of S 80 acres of W½ of Share 254, Por. 39, J. of Reynosa.
T.D. 2,806 ft.; drlg. saturated sand.

Moncrief & Showers' No. 1 John Lawrence on 9.52-ac. tract.
Derrick comp.; moving in machinery.

Reynosa Oil Co.'s No. 1 Guerra, 330 ft. from W line, midway between N and S lines of NW 10-ac. of SW 40 acres of Tract 254, Porcion 39.
Rigging up.

Reynosa Oil Co.'s No. 1 P. S. Rivas, 330 ft. from N line, 258 ft. from W line of N 30-ac., Tract 393, Por. 39.
Location.

Ed Sullivan's No. 1 E. B. Guerra, center of NE 10.77 acres of SW 40.7 acres of Tract 254, Por. 39.
Location.

Van Dresar et al's No. 1 W. R. Jackson, 330 ft. from N and W lines of 92-ac. tract, Por. 38-39-40, Blk. 278.
Location.

Otto Woods' No. 1 F. B. Guerra, 1,700 ft. NW of discovery well.
T.D. 2,800 ft.; making D.S. test.

Otto Woods' No. 2 F. B. Guerra, 600 ft. due N of discovery well, Tract 254, Por. 39.
Sand 2,786-90 ft.; W.O.C.

Otto Woods' No. 2 John Lawrence, 330 ft. from N and E lines of W 40 acres of Tract 274, Por. 39.
Drlg. 2,670 ft.

Otto Woods' No. 3 John Lawrence, 330 ft. from S and W lines of W 40 acres of Tract 274, Por. 39.
Rigging up.

Otto Woods' No. 4 John Lawrence, 330 ft. from E line, 250 ft. from S line of W 40 acres, Tract 274, Por. 39.
Rigging up.

Windsor Oil and Circle W Oil Co.'s No. 1 J. H. Doss, 330 ft. from N and W lines of 55 acres or in Tract 278, Por. 40.
Location.

JACOB POOL—McMULLEN COUNTY

American Gas Co.'s No. 1 L. Jacobs Corp., 350 ft. W of SE cor., 160 ft. SE line of tract in Fadden Sur.
Spudded and S.D.

Benson et al's No. 9 John Stiz, midway between No. 1 and No. 6, Blk. 40, Sur. 7
T.D. 1,600 ft.; P.B. to 704 ft.; comp. for small producer; no gauge.

E. W. Hopkins' No. 1 H. L. Lark, 160 ft. from N and W lines of W half of Blk. 30, Scrugham Sur.
Abd. 1,060 ft.

C. R. Kennon's No. 4 H. L. Lark, 175 ft. from S line, 175 ft. from W line of E 20-ac. of Blk. 15 of Scrugham Sur.
Location.

C. R. Kennon's No. 5 H. L. Lark, 175 ft. from S and E lines of E half of Blk. 15 of Scrugham Sur.
Location.

Loma Oil Co.'s No. 30 Jacob, 660 ft. S, 330 ft. W of NE cor. Sec. 10, H.&T.C.R.Y. Sur.
T.D. 870 ft.; S.D.

Stewart & Holding Co.'s No. 2 Jacob, 660 ft. S and 660 ft. E of No. 2, John Fadden Sur.
T.D. 895 ft.; drlg. plugs.

Ormsby & Stewart's No. 4 Jacob, one-half mi. S of No. 3.
T.D. 870 ft.; S.D.; (depth corrected).

Sunland Oil Co.'s No. 1 H. L. Lark, W. H. Jacob Sur. No. 8.
T.D. 1,026 ft.; making pump test.

R. P. Whitefield's No. 1-A Jacob, 1,500 ft. from W line, 1,200 ft. from S line of SW of Sur. 17.
T.D. 1,116 ft.; coring.

SINTON—SAN PATRICIO COUNTY

Heep Oil Corp.'s No. 2 R. Welder, 466 ft. from S line, 2,000 ft. from E line of Adobe line Welder tract in Victor Loupsey Sur.
Derrick.

Heep Oil Corp.'s No. 4 R. Welder, 466 ft. from S and W lines, 300-ac. tract, Victor Loupsey Sur.
T.D. 7,247 ft.; drill pipe stuck.

Plymouth Oil Co.'s No. 3-A Wheeler.
Location.

JEFFRIES-LAMBETH—STARR COUNTY

Weekly Oil Co.'s No. 2 S.C.C.C., 330 ft. from S and W lines of Blk. 19, Porcion 89.
Drlg. 1,500 ft.

LOS OLMOS—STARR COUNTY

J. P. Kennedy's No. 8 Kelsey-Bass, 200 ft. SE of No. 7 Kelsey-Bass in Blk. 7 of Porcions 75, 76 and 77.
Location.

CUEVITAS POOL—STARR COUNTY

Sun Oil Co.'s No. 5-C M. Guerra & Son, 1,320 ft. NE of No. 4-C La Sacatosa grant.
Location.

AGUA DULCE—NUECES COUNTY

Clymore Prod.'s No. 3 Ingram, 660 ft. from E and S lines, Sec. 6, Blk. 6, Peters Subd.
Derrick down.

Clymore Prod. Co.'s No. 3-D Ingram, 660 ft. from S and W lines of Lot No. 7, Sec. 6, Peters Subd. No. 3.
Location.

Clymore Prod. Co.'s No. 1-C Ollie Puri, 660 ft. N and E lines of Lot No. 2, Sec. 7 Peters Subd. No. 2.
Moving in rig.

SAXET—NUECES COUNTY

Southern Mineral Corp.'s No. 4 Ocher, 1,320 ft. S line and 417 ft. E line of Ocher 202.52-ac. tract in Sec. 8.
Location.

KIMBRO—TRAVIS COUNTY

Humble O. & R. Co.'s No. 2 Buck Christian, 330 ft. SE cor. tract, Kemp Sur.
T.D. 769 ft.; showing for producer.

WEST COLE POOL—WEBB COUNTY

American Liberty Oil Co.'s No. 1-B Bruni estate, 418 ft. from NE line, 260 ft. from NW line of Blk. 13.
Sand 3,407-32 ft.; set 7-in. csg. at 3,406 ft.; comp.; 20 bbls. per hr.; ⅝-in. choke; T.D. 3,439 ft.

American Liberty Oil Co.'s No. 4-A Bruni, 777 ft. SW line, 1,598 ft. SE line of Sur. 6, Foltz Subd., Arispe grant.
Drlg. 700 ft.

American Liberty Oil Co.'s No. 6-A Bruni, 330 ft. NW line, 1,003 ft. SW line of Sur. 6.
Moving in.

American Liberty Oil Co.'s No. 2-B Bruni, 418 ft. NE line, 260 ft. NW line of Blk. 12, Sur. 5.
Rigging up.

Herman Brown's No. 2 Bruni Est., 418 ft. from NE line, 260 ft. from SE line of Blk. 8, Foltz Subd., Sur. 5, Arispe grant.
Sand 3,409-30 ft.; 7-in. csg. at 3,409 ft.; comp.; I.P. 20 bbls. per hr.; ⅝-in. choke; T.D. 3,440 ft.

Herman Brown's No. 3 Bruni Est., 243 ft. NE line, 260 ft. SE line of Blk. 2, Sur. 5, Arispe grant.
Rigging up.

Cole Pet. Co.'s No. 36 Benavides, Sur. No. 1, Callaghan homestead tract.
Abd. 3,990 ft.

Cole Pet. Co.'s No. 37 R. Benavides, 990 ft. SE line, 330 ft. SW line of Sur. 1.
Spudded.

Kalmore's No. 1-B Bruni, 330 ft. to W line, 418 ft. SW line, Blk. 33, Sur. 5, Adams Subd., Mariano Arispe grant.
No report.

O. W. Killam's No. 28 Bruni, 1,427 ft. NE line, 2,172 ft. SE line, Blk. 6.
T.D. 1,500 ft.; drlg.

South Texas Oil Co.'s No. 13 Laurel, 800 ft. from W line, 150 ft. from S line, Blk. 4, Sur. 270.
Sand 1,792-98 ft.; 6⅝-in. csg. 1,784 ft.; I.P. 20,000,000 ft. of gas; comp.

Sun Oil Co.'s No. 2 Bruni, 418 ft. NE line, 260 ft. SE line, Blk. 9, Sur. 5.
Rigging up.

Sun Oil Co.'s No. 1 Bruni Est., 418 ft. NE line, 260 ft. SE line of Blk. 4, Sur. 5, Arispe grant.
Sand 3,415-31 ft.; 7-in. csg. 3,415 ft.; comp.; I.P. 30 bbls. per hr.; T.D. 3,435 ft.

Starr State Oil Co.'s No. 11 Yeager, 200 ft. S line, 450 ft. E line of 632-ac. tract in Share 5 of Los Animas grant.
T.D. 3,291 ft.; reaming to test.

TAYLOR—WILLIAMSON COUNTY

G. L. Rowsey's No. 1 Lange, 150 ft. SW line, 1,900 ft. N of creek, Hamilton White Sur.
Spudded in.

G. L. Rowsey's No. 1-C Sladek, 150 ft. NE line, 2,621 ft. N of creek in H. White Sur.
T.D. 380 ft.; drlg.

G. L. Rowsey's No. 2-C Sladek, 150 ft. NE line, 2,921 ft. N of creek, H. White Sur.
Moving in.

JENNINGS—ZAPATA COUNTY

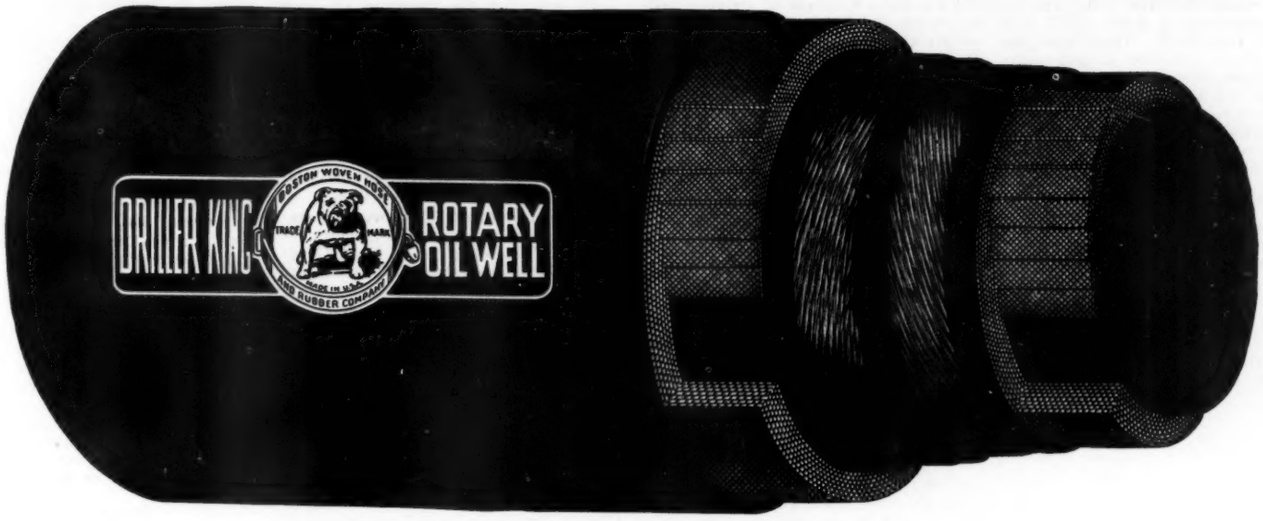
Texas Co.'s No. 56 Whitehead, 672 ft. from SE line, 18,433 ft. from SW line of Cerrito Blanco grant.
Sand 1,188-1,220 ft.; I.P. 15 bbls.; T.D. 1,798 ft.; comp.

Texas Co.'s No. 57 Whitehead, 1,115 ft. SE line, 18,992 ft. S line of Cerrito Blanco grant.
Rigging up.

RANDADO—ZAPATA AND JIM HOGG COUNTIES

Sulgrave Oil Co.'s No. 1-A Maryland Trust Co., 664 ft. from S line, 662 ft. from E line of Tract A, Blk. 29, Sur. 314.
T.D. 1,450 ft.; drlg.; set 10-in. csg. at 58 ft.; testing sand.

B.W.H.
ROTARY OIL HOSE



TEST PRESSURE: 6,000 LBS.

TEST PRESSURE: 4,000 LBS.

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Wilcox Zone in Fish Pool Yields 3 New Wells Averaging 3,000 Barrels Initial Production

By JAMES McINTYRE

Three Wilcox sand completions in the recently opened deep sand producing zone in Section 31-7-8, Seminole County, on the west side of the Fish Pool, yielded a total initial production of 9,207 bbls. in initial production. The wells came in with a production of 3,360, 3,447 and 2,400 bbls. respectively. These were the feature wells of the week in Oklahoma. No completions were reported from Oklahoma City, Fitts or Lucien Pools and only one relatively small completion was recorded in the South Burbank Field. The Texas Co. completed a 2,960-bbl. well in the Crescent Pool.

Estimated Production

Estimated production by pools in Oklahoma for the week ending October 27 and for the preceding week follows:

	Barrels	
	Oct. 27	Oct. 20
Allen	7,625	7,650
Blackwell district	4,800	4,850
Bristow-Slick	10,250	10,250
Cushing-Shamrock	13,500	13,500
Chandler district	6,000	6,250
Fitts	1,550	1,350
Healdton	9,250	9,300
Hewitt	4,750	4,750
Burbank	9,100	9,100
South Burbank	8,750	9,000
Balance of Osage	25,000	25,000
Lucien	8,700	7,325
Crescent	3,175	4,025
Marshall-Lovell	1,100	1,100
Bowlegs	10,850	11,250
Carr City	5,250	5,925
Earlsboro	9,760	10,200
East Earlsboro	8,575	10,025
South Earlsboro	975	1,100
Little River	13,500	14,850
East Little River	650	700
Seminole	10,325	10,450
East Seminole	1,200	1,125
Searight	2,500	3,125
Maud	1,250	1,200
Mission	2,950	3,150
St. Louis-Pearson	18,450	20,525
Keokuk	1,050	1,050
Cromwell	4,425	4,600
Papoose	1,250	1,250
Oklahoma City	125,300	158,950
Asher-West Asher	1,525	1,575
Tatums	5,725	6,550
Sholem-Alechem	4,100	4,100
Duncan	4,300	4,350
Tonkawa-Garber-Thomas	6,300	6,325
Fish	5,325	4,050
Konawa	3,000	3,050
Gray	2,000	1,975
Graham	3,650	5,650
Holdenville	2,650	2,700
Wewoka	4,200	4,150
Yale-Jennings	4,750	5,000
Other pools	61,188	61,175
Total	439,550	480,375

Plans Another Deep Test

The Denver Producing & Refining Co., owner of the deepest oil producing well in the world, its No. 1 A-dah Noe, NW SW SW Section 34-10-10w, Caddo County, will start a new test, 990 feet west and then 330 feet south of the above-named well as soon as the deep hole is completed, according to R. G. Rapp, president of the company. The second test will be on Indian land, C SE SE Section 33-10-10, a 40-acre location, and it will be sent to the deepest horizons possible to reach with the drill. No. 1 A-dah Noe is bottomed at 11,230 feet with about 6,000 feet of 3-inch drill pipe in the hole. A long fishing job has been engaged in and a lot of junk has been taken out of the hole from above the top of the lost drill pipe. The well is believed to be good for 200 bbls. per day from a pay between 9,000 and 10,000 feet in depth if it can be put on production.

Water Flooding

The corporation commission has authorized the Wiser Oil Co. to conduct an experimental flood of certain old stripper well properties in Nowata County and in the Glenn Pool in Creek County. The Wiser Oil Co. proposes to use the methods so successful in the Bradford Field in northwestern Pennsylvania which, in 20 years or more, increased the production of that field from 3,500 bbls. per day to 35,000 bbls. per day. The Wiser Oil Co. owns hundreds of stripper wells in several Oklahoma Counties, and if its efforts are successful in the experimental flood which it will start in the Nowata and Glenn Fields it will mean much to operators owning the many thousands of old wells in Osage, Washington, Tulsa, Creek and Okmulgee Counties, producing from sandstone formations. The Bartlesville sand to be tested is not as hard or as finely grained as the Bradford, but experiments thus far made in the old Cherokee shallow sand fields warrant further tests with the water drive.

Wildcats Favored

Assistant Proration Umpire C. C. Brown recommended to the corporation commission that the bulk of the 1,900-bbl. increase in Oklahoma's November oil allocation be allotted to the wildcat districts. Brown expects that about 18 wells will be completed in the wildcat areas between now and the end of November. Small changes were suggested in some of the Greater Seminole group of pools due to the inability of some wells to produce as much oil as they were allowed, and in the case of other wells because of their overproduction.

Fitts Pool operators asked the commission to limit the drilling of wells in that area to one well to 10 acres. W. A. Delaney, one of the pioneer operators in the pool, informed the commission that there were several small tracts in the field, and that the townsites of Jesse and Francks in Townships 2-6 and 1-7, respectively, had been leased in blocks. Up to this time all locations have been made on a 10-acre basis.

New Pools Given Names

A number of recently opened pools in Oklahoma were given official name by the nomenclature committee of the Mid-Continent Oil and Gas Association.

The pool northeast of Shawnee, Pottawatomie County, opened by Stanolind Oil & Gas Co. and associates at No. 1 Goodman, Section 5-10-4e, was called the Shawnee Pool.

The areas between Tecumseh and Hotulke, in Pottawatomie County, opened by W. D. Grisso and others' No. 1-A Scarborough, in Section 3-8-4, Grisso Pool.

The pool discovered by Fleetborn Oil Co. and others in their No. 1 Bowlegs, in Section 27-8-8, east of Wewoka, in Seminole, was dubbed East Wewoka.

The Texas Co.'s No. 1 Gessman, in Section 33-14-4e, south of Chandler, in Lincoln County, and which opened a new area, is called the Gessman Pool.

West of Okemah, in Okfuskee County, opened by the Carter Oil Co.'s No. 1 Dill, in Section 2-11-8, the Boley Pool.

Operating Rules in New Pools

The Federal Oil Administration approved development plans for three newly discovered pools in Oklahoma. The plans, described as designed to conserve lifting energy and to prevent premature depletion, follow:

Shawnee Pool, Pottawatomie County—Not more than six wells to be drilled before January 1, operators at that date to submit a permanent plan; each well to be in the center of a 10-acre tract.

Wilcox horizon of the Fears Pool in Creek County—No well to be drilled nearer than 660 feet to any other completed or drilling well; no well to be drilled nearer than 330 feet to any property line, lease line or subdivision line; not more than two additional wells to be drilled during the remainder of 1934; operators to submit by December 10 a plan for number and location of wells to be drilled during next year.

Wilzetta Pool, Lincoln County—Not more than one well to 10 acres; not more than five wells to be drilled to production during 1934; operators to submit by December 10 a plan for number and locations of wells to be drilled during next year.

Osage County

Completions in Osage County in the past week were Reva Oil Co.'s No. 2-B, NW SW SW Section 29-28-11, Red Fork sand at 800-37 feet, 300,000 feet of gas; rock pressure 200 pounds.

Phillips Petroleum Co.'s No. 1, SW SE NE Section 27-26-6, shot with 30 quarts at 2,918-30 feet, Burbank sand, pumped 30 bbls. in 24 hours.

Skelly Oil Co.'s No. 5, NW SW SE Section 16-25-6, shot with 10 quarts at 2,841-51 feet, flowed and swabbed 100 bbls. in 24 hours.

Norbla Oil Co. and others' No. 1, SE SE NW Section 19-25-7, a wildcat, chat at 2,787-2,810 feet, hole full of water, abandoned. It had a small oil showing in sand at 2,671-81 feet.

Ray Branstetter's No. 2, SW SW NE Section 27-22-11, shot with 90 quarts at 1,646-72 feet, swabbed 16 bbls. of oil and 25 bbls. of water the first 24 hours.

Norbla Oil Co. and Beck's No. 1, NW SE NE Section 8-20-10, Mississippi lime at 2,185 feet, total depth 2,208 feet, in lime, hole full of water, abandoned.

New work included Champlin Refining Co.'s No. 3 Fletcher, SE SW SE Section 4-25-6, building a rig; Skelly Oil Co.'s No. 6, SE SW SE Section 16-25-6, building a rig; same company's No. 7, SW SE SE Section 16-25-6, rig on the ground. Phillips Petroleum Co.'s No. 16, SE SW SE Section 31-24-12, a location; Finance Oil Co.'s No. 1, C W half E half SW Section 19-23-9, an old well to be deepened from 2,115 feet, machine in; The Texas Co.'s No. 3, SE SW SW Section 28-23-11, old well to be deepened from 1,046 feet, rigging up; Norbla Oil Co. and Indian Territory Illuminating Oil Co.'s No. 2, SE NE SW Section 30-22-9, machine; W. C. Norris, No. 5, 700 feet east and 700 feet east of C Section 29-21-11, a machine.

Noble County

In the Polo area in Noble County the Mid-Continent Petroleum Corp.'s No. 1 Smith, SE SW NE Section 28-22-2w, found Wilcox sand at 4,927-35 feet barren of oil and it was abandoned.

Kay County

Bay Oil Co. is building rig for No. 1

Wildcat Operations in Oklahoma

Week Ending October 27

NORTHERN OKLAHOMA

ALFALFA COUNTY

Acre et al's No. 1 Acre, C SW NE Sec. 14-24-11w.
T.D. 4,460 ft.; lost tools and S.D.

BECKHAM COUNTY

Fred Coogan et al's No. 1 Shelton, SW cor. Sec. 33-10-25w.
Rigging up rotary.

CADDO COUNTY

H. W. Lee et al's No. 1 Stacey Ferrell, SW NE NE Sec. 3-6-13w; (2,000-ft. test).
Drlg. 630 ft.

Denver Prod. & Ref. Co.'s No. 1 Noe, NW SW SW Sec. 34-10-10w.
T.D. 11,230 ft.; trying to land 6-in. csg. at 4,000 ft.; flowed 200 bbls.

CLEVELAND COUNTY

Anderson & Kerr et al's No. 1 Wilson, NW SE Sec. 27-10-1e.
Wilcox sand 6,253 ft.; no oil showing; S.D. 6,277 ft.

Mid-Continent Pet. Corp. et al's No. 1 Collett, C E½ NE SW Sec. 35-10-1w.
Hunton at 6,164 ft.; drlg. 6,320 ft., in Hunton.

COAL COUNTY

Moore & Deaner's No. 1 Edward, NW NE SE Sec. 27-2-8.
T.D. 7,102 ft.; testing.

J. D. Petty Oil Co.'s No. 1 McMillan, SW NW NE Sec. 16-1s-8.
Drlg. 810 ft.

GARFIELD COUNTY

Ross Cummings et al's No. 1 Gage, SE NW Sec. 27-22-3w.
Spudded and S.D.

GARVIN COUNTY

William H. Atkinson et al's No. 1 Pharoah, NW cor. Sec. 15-3-2w.
Drlg. 5,260 ft.

National Prod. Co.'s No. 1 Littrell, NE cor Sec. 31-2n-3w.
Drlg. 500 ft.

GRANT COUNTY

Helmerich & Payne's No. 1 Crouse, C NE SW Sec. 29-25-8w.
Drill pipe recovered; reconditioning.

Sultan Oil Corp.'s No. 1 Patton, SW SE Sec. 19-29-3w.
Drlg. 4,723 ft.

HARPER COUNTY

Sinclair Prairie Oil Co.'s No. 1 Neff, NW SE Sec. 21-26-24w.
Drlg. 6,210 ft.

HUGHES COUNTY

Freeman et al's No. 1 Kite, NW NW NE Sec. 4-6-10.
Machine.

Turner et al's No. 1 Williams, SW cor. Sec. 35-7-10.
Rig.

KAY COUNTY

Bay Oil Co.'s No. 1 Holden, SW SW SE Sec. 14-28-3.
Bldg. rig.

Carter Oil Co.'s No. 1 Fowler, C NE Sec. 12-27-1e.
Bldg. rig.

S. R. McCorkle et al's No. 1 Smith, SW cor. Sec. 6-26-4.
Bldg. rig.

KINGFISHER COUNTY

Jadeka Dev. Co.'s No. 1 Frakes, C SW NE SW Sec. 16-15-6w.
T.D. 7,612 ft.; drill pipe pulled; S.D.

LEFLORE COUNTY

East Okla. O. & G. Co.'s No. 1 Metcalf, SW cor. Sec. 2-4-26.
T.D. 2,040 ft.; hole caved; S.D.

Murdock et al's No. 1 fee, SW NE SW Sec. 15-5-25e.
T.D. 2,425 ft.; S.D.

LINCOLN COUNTY

Tom Bennett et al's No. 1 Bolby, C SE SW Sec. 27-12-2.
Cored 5,045-81 ft.; will run csg.

R. L. Kemp and Comail Oil Co.'s No 1 Dooley, NE SW Sec. 20-17-6.
Rigging up standard tools.

Derrickson and Reserve Pet. Co.'s No. 1 Law, SE SW NE Sec. 25-14-3.
Rig on ground.

M. Murray and Ralph Day's No. 1 Rittenhouse, NW NW NE Sec. 26-14-6.
Prue sand 3,083 ft.; drlg. 3,200 ft.

Sinclair Prairie Oil Co.'s No. 1 Hoyt, NW SW NE Sec. 5-14-3.
Rigging up rotary.

LOGAN COUNTY

W. N. Anthony's No. 1 Fruin, SE SW Sec. 4-16-1.
Wilcox 5,265-85 ft.; P.B. to 5,181 ft.; will shoot Misener sand.

Gypsy Oil Co. and Sinclair Prairie O. & G. Co.'s No. 1 Manning, C NW NW Sec. 3-17-4w.
T.D. 6,411 ft.; will test Layton sand.

Helmerich-Payne et al's No. 1 Sturgis, SE NW.
Rig on ground.

Sinclair Prairie Oil Co. et al's No. 1 Dunbar, Sec. 25-15-4w.
Rig on ground.

OKLAHOMA COUNTY

Springrose Drlg. Co.'s No. 1 Edwards, C SE Sec. 19-11-1.
T.D. 6,549 ft.; 400 ft. drill pipe in hole; S.D.

OSAGE COUNTY

Peters Pet. Co. and Norbla Oil Co.'s No. 1 SW cor. Sec. 15-25-5.
H.F.W. 3,040 ft.

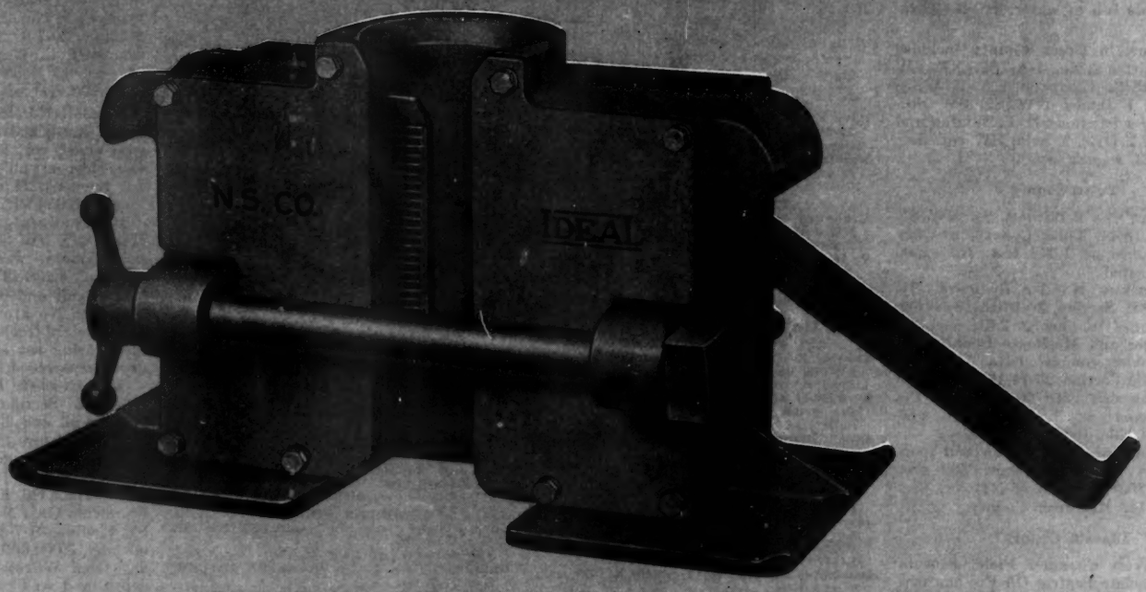
(Continued on Next Page)

IDEAL

"Reg. U. S. Pat. Off."

TUBING SPIDER

TYPE D-2



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THE NATIONAL SUPPLY COMPANY

Hudson, SW SW SE Section 14-28-3, Kay County. Carter Oil Co. was building rig for No. 1 Fowler, C NE Section 12-27-1e, and D. S. R. McCorkle and others were building rig for No. 1 Smith, SW cor. Section 6-26-4, all wildcat tests.

Pawnee and Creek Counties

In Pawnee County S. Martin's No. 9 Cotton, SE NW NE SW Section 6-20-8, was shot with 60 quarts in sand at 2,630-60 feet and it swabbed 100 bbls. in 12 hours. It was not completed.

Darby Petroleum Co. completed No. 4 Jackson, SE NW NW Section 3-18-8, was shot in sand at 2,643-60 feet and swabbed 30 bbls. in 24 hours.

McEwen & Ice abandoned No. 1 Elle, SE NE SE Section 33-18-8, at 400 feet, and will start a new hole.

Peter Adamson's No. 1-A Parks, SE cor. SW Section 10-18-10, is a 2,000,000-foot gas completion, producing from Red Fork sand at 2,026-70 feet.

Wells and others' No. 4 Tahledge, NW SE NW Section 10-18-11, an old well deepened from 2,010 feet to Wilcox sand at 2,280-91 feet, where it found a small showing of oil, gas and water, and then to Siliceous lime at 2,444-61 feet where it got a hole full of water. It was abandoned.

New work in Creek County included A. D. Whitten's No. 1-A, SE NE SW Section 8-18-12, rigging up; A. J. Whitfield's No. 1 James, NW SE SW Section 9-17-8, a location; B. L. Wigton and others' No. 2 Dyle, a twin, SW cor. Section 5-15-12, rigging up.

Tulsa County

Sam Kuns' No. 2 Barnett, SE NW SE Section 13-18-14, Tulsa County, was dry and abandoned at 1,348 feet. No sands were penetrated.

C. O. Buckles' No. 1-A Spaniard, NE SW SW SE Section 36-16-13, was dry and abandoned in lime at 2,618 feet.

Okmulgee and Muskogee Counties

A. G. Hazlett completed No. 5 Burton, CEL SE SE Section 25-14-12, Okmulgee County, was shot with 60 quarts in the Dutcher sand at 1,940-55 feet and swabbed 40 bbls. in 24 hours.

J. Penrod, Inc., had rig up and tools in to start No. 4 Edwards, 500 feet south and 300 feet west of NE cor. Section 30-12-14, McIntosh County.

Lincoln County

In the West Chandler Field, Lincoln County, Sinclair Prairie Oil Co. has material on the ground for No. 3 Hopkins, SW SW NE Section 12-14-3. Its No. 2 Hopkins is not yet completed but is a producer, although thus far a relatively small one. It was shot with 10 quarts in Wilcox sand at 4,997-5,005 feet and later swabbed 100 bbls. in 16 hours. In the past week it swabbed 50 bbls. in 24 hours.

In the Chandler Field Sinclair Prairie Oil Co. made a location for No. 1 Gauman, NW NW SW Section 34-14-14, and the Texas Co. has material on the ground for No. 1 F. Coyle, SW SW NW Section 34-14-4. There were no completions in either the Chandler or the West Chandler Pool.

Mid-Continent Petroleum Co. was rigging up rotary for No. 1 Wagoner, NW SW NW Section 10-13-6.

Logan County

In the Crescent Pool in Logan County Gypsy Oil Co. and Sinclair Prairie Oil Co.'s No. 1 Manning, C NW NW Section 3-17-4w, north of the Crescent Pool in Noble County, and a wildcat, which was barren in both Wilcox sands, will be tested in the Layton sand which was topped at 4,863 feet. This test had been drilled to 6,411 feet.

Gypsy Oil Co.'s No. 1 Hanewickel, C NW NW Section 27-17-4w, swabbed water when tested in the past week. It has not been completed.

Mid-Continent Petroleum Corp. made a location for No. 2 Campbell, SE SE NE Section 33-17-4w.

The Texas Co. completed No. 2 Denny, SE NE SE Section 33-17-4w. It flowed 2,900 bbls. in 24 hours from sand at 6,131-53 feet in a potential test, also producing 2,500,000 feet of gas.

Eason Oil Co.'s No. 2 Katscher No. 1, S NE NE SW Section 34-17-4w, which was drilled to 6,341 feet, was plugged back to 6,324 feet and shot with 160 quarts at 6,280-6,324 feet. The pipe collapsed at 5,900 feet. The pipe was swaged and the well flowed 100 bbls. of oil in 24 hours.

Eason Oil Co. abandoned the location for No. 2 Katscher No. 2, C SW SW Section 34-17-4w, and may abandon No. 1 Katscher No. 3, SW SE NW Section 34, but the company is digging cellar for No. 4 Katscher, SW NW SW Section 34.

There is no activity whatever in the Langston Pool in Township 17-1w.

Sinclair Prairie Oil Co. and others have rig on the ground for a wildcat community test, No. 1 Dunbar, SW SW NE Section 25-15-4w, and Helmerich & Payne and others have rig corners in for No. 1 Sturgis, a wildcat community test in SE SE NW Section 1-15-2w.

Oklahoma County

Oklahoma County was stagnant in the past week. No completions were reported or new operations started.

Greater Seminole

Carter Oil Co. and others were taking a potential test at No. 1 Stake C-28, C S half NE SW Section 35-11-6, which had been acidized in Misener sand at 4,143-53 feet and flowed 340 bbls. in 21 hours.

Carter Oil Co.'s No. 1 Welty, C SW NE Section 2-11-6, had Hunton lime at 3,900 feet and was drilled to 3,945 feet. It flowed 105 bbls. of oil and 105 bbls. of water in 14 hours and later 170 bbls. of oil and 110 bbls. of water in 24 hours. The crew was cementing off bottom hole water.

The Texas Co. was drilling at 4,090 feet in No. 4 Brown, NE SW NW Section 10-9-5, Earlsboro district, an old hole being deepened.

Carter Oil Co. and others made a location for No. 2 Stanford, C-2, C SE NW SE Section 16-9-6, in the Seminole City district.

Three wells in the Maud Pool will be plugged back to the Hunton lime. Amerada Petroleum Corp.'s No. 1 J. Tiger, NW NE SW Section 3-8-5; same company No. 6 J. Tiger, NE NE SW Section 3, and same operator's No. 3 L. Tiger, NE SW NE Section 3. They were all Wilcox sand producing wells. Pure Oil Co. and Sovereign Oil Co. were moving in material for No. 2 Coker, NW SE NE Section 2-8-5.

Atlantic Oil Producing Co. has abandoned the location for No. 1 Emarthla, CWL NE NW SW Section 18-8-7, Seminole County.

Rogers Oil & Gas completed a failure in No. 1 McNac, NE NW SW Section 18-8-7, which was drilled to 4,153 feet with only a showing of oil in Wilcox sand topped at 4,145 feet.

Vivian Oil Co. was rigging up rotary for No. 1 Duvall, NW SE SE Section 4-7-4, Pottawatomie County.

Smithpoe Oil Co.'s No. 1 Phillips, NW SW NE Section 10-7-4, was dry and abandoned in Cromwell sand at 3,455-56 feet, total depth.

Phillips Petroleum Co.'s No. 2 Curley, SW SE NW Section 22-7-4, an old well deepened from 3,645 feet and completed at 4,212 feet several weeks ago, was again deepened to 4,222 feet. In the past week it was produced by means of a Reda pump and made 361 bbls. of oil and 650 bbls. of water in 11½ hours. The oil is coming from Simpson dolomite topped at 4,173 feet.

In the Fish Pool, on the Hughes-Seminole County line, Magnolia Petroleum Co.'s No. 2 Reed, SE NE SE SE Section 30-7-8, Seminole County, was completed in Wapanucka lime at 3,018-71 feet. It flowed 600 bbls. of oil and 2,500,000 feet of gas the first 24 hours.

Magnolia Petroleum also completed No. 3 Reed, 200 feet north and 150 feet west of SE cor. Section 30-7-8. It flowed 480 bbls. of oil and 1,500,000 feet of gas the first 24 hours from Wapanucka lime at 3,050-99 feet.

Mid-Continent Petroleum Co.'s No. 1 Harjo, NE SW SE Section 31-7-8, Seminole County, was completed in Wilcox sand at 4,238-43 feet. It flowed 3,300 bbls. of oil and 6,000,000 feet of gas in 24 hours. No 2 on the lease was rigging up standard tools to complete, with 6-inch casing set at 4,163 feet and total depth reported 4,177 feet.

Slick-Urschel, Inc.'s No. 1 Reed, SE NW SE Section 31-7-8, flowed 3,447 bbls. of oil and 3,000,000 feet of gas the first 24 hours from Wilcox sand at 4,187-4,203 feet, total depth. It was completed.

Stanolind Oil & Gas Co. and Amerada Petroleum Co.'s No. 1 Sarkey A, NW NE SE Section 31-7-8, flowed 2,400 bbls. of oil and 3,000,000 feet of gas the first day from Wilcox at 4,181-90 feet, total depth, and was completed.

Winona Oil Co. and Jarvis & Holm, discoverers of the Wilcox sand pay in Section 31, completed No. 2 Meyers, NE SW NE Section 31, in Wapanucka lime at 3,075 feet, total depth 3,252 feet. It swabbed and flowed 586 bbls. in one day.

New work in the Greater Seminole area included the following: Stanolind Oil & Gas Co.'s No. 1 Sauter, NE NE SE Section 31-11-4, a rig; Olean Petroleum Co.'s No. 3 George Fish, SE NE NW Section 36-10-11, Okfuskee County, rigging up to deepen to the Wilcox sand from 3,209 feet; Carter Oil Co. and others' No. 2 Sanford, C-2, C SE NW SE Section 16-9-6, Seminole County, location; Minnehoma Oil Co.'s No. 1 Hill, C SE NE Section 3-8-4, Pottawatomie County, rig; Pure Oil Co. and Sovereign Oil Co.'s No. 2 Coker, NW SE NE Section 2-8-5, Seminole County, miving in material; Vivian Oil Co.'s No. 4 Duvall, NW SE SE Section 4-7-4, Pottawatomie County, rigging up rotary; Westgate Oil Co.'s No. 1-A Hambree, SE NW SE Section 18-7-5, location; Suway's No. 3 Jacobs, NE NW NW Section 15-7-8, rigging up to deepen from 2,952 feet; Stanolind Oil & Gas Co.'s No. 1 Myers, SE NW NE Section 31-7-8, rig; A. A. and R. W. Vierson's No. 1 Jones, NE SW NW Section 11-6-6, Seminole County, rigging up rotary.

Pontotoc County

In the Fitts Pool, Pontotoc County, there are five locations and rigs and 22 drilling wells in Townships 2-7 and 2-6. No completions were reported in the past week. The Carter Oil Co. lost no time

(Continued on Page 78)

Wildcat Operations in Oklahoma

(Continued from Preceding Page)

Reva Oil Co.'s No. 2-B, NW SW SW Sec. 29-28-11.
Comp.; 300,000 ft. gas, 800-27 ft.

Norbla Oil Co. et al's No. 1, SE NW Sec. 19-25-7.
Chat 2,787-2,810 ft.; H.F.W.; abd.

PITTSBURG COUNTY

Exchange Drlg. Co. et al's No. 1 Chuna, SE NW Sec. 29-4-14.
T.D. 350 ft.; waiting for csg.

P. H. Gray et al's No. 1 Lee, NW SE Sec. 12-5-12.
S.D. 160 ft.

W. E. Hailey's No. 1 Drew, NW SW Sec. 21-3-14.
S.D. 190 ft.

PONTOTOC COUNTY

Charles E. Carter et al's No. 1 Wood, NW SW SE Sec. 5-4-8.
Spudded and S.D.

S. D. Denton et al's No. 1 Gray, NW SE Sec. 9-4-3.
Cellar and pits; location abd.

E. M. Blanchard's No. 1 Crabtree, NE SE NE Sec. 27-3-6.
S.D. 2,920 ft.

Boyle et al's No. 1 Newbern, SW NE Sec. 31-5-4.
P.B. to 2,080 ft. and shot; H.F.W.; S.D.

Jarrett Pet. Co.'s No. 1 Johnson, SE NW Sec. 28-4-4.
Wilcox sand 1,915-28 ft.; H.F.W.; P.B. to 1,615 ft.; shot Viola lime; C.O.

Dandridge et al's No. 1 Stafford, NW cor. Sec. 5-1-6e.
T.D. 740 ft.; S.D.

Gillette & Kroeger's No. 1 Robbins, NE SE Sec. 31-1-4.
Drlg. 735 ft.

Gillette & Kroeger's No. 1 Duver, NW SE Sec. 36-1n-6e.
Drlg. 760 ft.

J. D. Sledge and Jack Lynch's No. 1-A (twin) Thompson, SW NE SW Sec. 1-1n-7e.
Set 8-in. csg. 3,815 ft.; Hunton lime 3,-830 ft.

Southern Oil Corp.'s No. 1 Ladd, C NW NW Sec. 27-3-7.
T.D. 515 ft.; set 12-in. csg.

POTTAWATOMIE COUNTY

Blackgold Pet. Co.'s No. 1 Bizzell, C NE NW Sec. 15-7-3.
Rigging up rotary.

Moran et al's No. 1 Brinlee, SW SW SE Sec. 27-6-5.
T.D. 2,698 ft.; showing of oil and gas; R.U. machine.

W. D. Grimse et al's No. 1-A Kenyon, C NE SE Sec. 3-8-4.
T.D. 4,067 ft.; flowed 283 bbls. in 6 hrs.; will acidize.

SEMINOLE COUNTY

Anderson & Kerr et al's No. 1 Baumgartner, NW NW SW Sec. 7-10-8.
Spudding.

Harris and Haun's No. 1 Harjo, NE SE NW Sec. 11-6-6 (O.W.P.B.).
P.B. to 2,115 ft.; shot; H.F.W.; S.D.

Mudge Oil Co.'s No. 1 Whitney, SE NW Sec. 9-6-7.
Sand 1,935-36 ft.; swbd. 45 bbls. oil and 45 bbls. of wtr. in 12 hrs.

Verser & Clay et al's No. 1 Thomas, NE SE NW Sec. 1-6-6.
Drlg. 2,089 ft.

TEXAS COUNTY (PANHANDLE)

Ben F. Ash et al's No. 1 Guymon Townsite, C NE SE Sec. 30-3n-15e (Cimarron Meridian).
Drlg. 1,810 ft.

WASHITA COUNTY

Anadarko Basin Oil Co.'s No. 1 Wolf, NE SW Sec. 23-9-17w.
Rigged up and S.D.

Okla.-Midwestern Oil Co.'s No. 1 Dock, SW cor. Sec. 21-8-18w.
T.D. 3,430 ft.; lost tools in hole; rig rebuilt; S.D.

SOUTHERN OKLAHOMA

ATOKA COUNTY

Brookshire et al's No. 1 Rowland, NW NE NE Sec. 13-3s-10e.
T.D. 3,709 ft.; tools stuck in baller.

J. D. Boukan's No. 1 Howard, NW SW NW Sec. 26-2s-10e.
S.D. 1,135 ft.; machine moved out.

L. A. Fitts' No. 1 Blankenship, NE cor. NW Sec. 19-3s-10e.
T.D. 651 ft.; S.D.

T. C. Ramler et al's No. 1 Roberts, SW SE SW Sec. 6-2s-12e.
S.D. 1,140 ft.

CARTER COUNTY

Daphfine Oil Co.'s No. 1 Hooks, SE NW NW SE Sec. 5-1s-2w.
T.D. 2,509 ft.; C.O.

CHOCTAW COUNTY

J. V. Scrivener et al's No. 1 Swink, C NE SE Sec. 23-4s-20e.
S.D. 510 ft.

COMANCHE COUNTY

F. F Stevens' No. 1 Green, SE SW Sec. 2-1-13w.
T.D. 1,210 ft.; fishing for bit.

Holden & Taylor's No. 2 Crutcher, C NE Sec. 11-1n-12w.
T.D. 863 ft.; repairing machine.

JACKSON COUNTY

Burk Royalty Co.'s No. 1 Gore, SE NW SE Sec. 3-1s-20w.
S.D. for wtr. at 1,600 ft.

Gypsy Oil Co.'s No. 1 Stokes, SE NW SW Sec. 11-1-20w.
Lime 1,709-11 ft.; T.D. 1,723 ft.; S.D.

Gypsy Oil Co.'s No. 1-A (Twin) Kelly, NE cor. Sec. 10-1n-20w.
Shot with 10 qts. at 1,150-70 ft.; 300,000 ft. gas; 140 lbs. pressure.

Gypsy Oil Co.'s No. 1-B Kelly (twin), 280 ft. S and 280 ft. W, SE cor. Sec. 10-1n-20w.
Bldg. rig.

Ben Russell et al's No. 1 Unknown, NW SE Sec. 30-1-22w.
S.D. 3,974 ft.

JEFFERSON COUNTY

Geo. Pace et al's No. 1 Jack, NE NW NW Sec. 10-4s-4w.
Drlg. 2,963 ft.

H. F. Young et al's No. 1 Boulden, SE SW SW Sec. 1-7-4w.
Location.

JOHNSTON COUNTY

Gled Oil Co. et al's No. 1 Ferguson, SW SE NE Sec. 26-2s-8.
Top Woodford 830 ft.; drlg. 1,030 ft.

MARSHALL COUNTY

Paul Robb's No. 1 Vittetoe, C NE SE Sec. 11-5s-4e.
T.D. 4,937 ft.; drill pipe stuck at 4,400 ft.

MURRAY COUNTY

T. E. Revell et al's No. 1 Wolfe, NE cor. Sec. 18-1-2.
Sand 2,653-70 ft.; show of oil; T.D. 2,710 ft.; S.D.

C. P. Williams et al's No. 1 Singleterry, SE SW NW Sec. 25-2s-3e.
Drlg. 415 ft.; showing of oil at 413-15 ft.

STEPHENS COUNTY

Wm. Angle's No. 1 Johnson, NE cor. SE Sec. 17-1n-8w.
Sand 1,740-45 ft.; drlg. 1,760 ft.

Carter Oil Co.'s No. 1 McCasland, C NW NW SW Sec. 22-1s-4w.
Set 8-in. 4,510 ft.; T.D. 4,840 ft.; 5 to 10 bbl. oil showing.

Dixie Oil Co., Inc.'s No. 1 Graham, SW SE SW Sec. 13-1n-7w.
Rig.

Finley et al's No. 1 Woolsey, NW SE Sec. 10-2s-6w.
Sand 325-27 ft.; show gas; abd. 440 ft.

Heenan & Coe's No. 1 Hefner, SE NE SW Sec. 13-3s-7w.
Drlg. 1,645 ft.

J. W. Madison's No. 1 Tussey, SW SE NW Sec. 24-1n-4w.
Rig down, drill pipe in hole; S.D. 3,230 ft.

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Among Gulf Coast Drilling Contractors

Jeff Hooper is moving a rig into Austin County, 4 miles west of the town of Sealy, to drill a 6,000-foot wildcat test for Sid Wheeless, independent operator. Derrick is being erected.

Harvey and Rush have set surface pipe on a test for the Kirby Petroleum Co. in Hardin County near the border of Polk County. Two previous tests were in Polk County. Present test is on Southwest Settlement & Development Co. land, Section 226, H.&T.C.R.R. Survey. It will go to approximately 6,000 feet if production is not encountered higher.

Alamo Drilling Co. has reached a depth of 5,763 feet on its projected 7,350-foot test for C. B. Bunte, Inc., at Eureka Heights, Houston's neighborhood well. Several shows of oil and gas have been encountered, and the well is reported to be running 78 feet high. Alamo is also making a new location on its own properties in the Sam Fordyce Field, Hidalgo County. Company's No. 1 Ed Sullivan, in the Sam Fordyce Field, showed salt water and has been swedged in temporarily, there being some prospects of it being carried deeper if adjacent wells indicate possibilities of deeper pay.

DeArman Brothers have set 550 feet of surface casing in their own well on the San Felipe Dome, Waller County, recently opened by a producer drilled by L. W. Capps.

C. & C. Drilling Co. has set 510 feet of surface pipe on a well for B. M. York in the Livingston Field, Polk County. Company is also preparing to rig up on a well for the Gem Oil Co. in the same field.

Steen Drilling Co. is digging below 5,700 feet on a well near Port Lavaca, Calhoun County, on a block of acreage held by the company.

John Deering is drilling a well at Pierce Junction for Cogswell and Deering. He also has a rig running at Batson for the Batson Oil Co. Seven-inch casing has been set at 4,860 feet, and a drill stem test from 4,860-85 feet showed 1,400 pounds of pressure on a quarter-inch choke. Well will be deepened in search of a body of oil sand. On his well for Deering & Kaiser, 10 miles southeast of the Sam Fordyce Field, Mr. Deering is drilling below 3,750 feet.

W. V. Bowles has one rig running for the Continental Oil Co. at Citrus Grove, Matagorda County, and one rig running for Texas Co. at Manvel, Brazoria County.

W. Claud Smith is rigging up on No. 2 Zeigler for Texas Co. at Tomball, and has a rig for the same company on a workover job at Conroe.

George Echols is moving a rig on a new location for the Houston Oil Co. in Gregg County, East Texas Field.

C. & R. G. Drilling Co. is drilling No. 1 Frank Truska, Brazoria County, having taken the last core at 7,575 feet. This well is being drilled for the Big Creek Oil Co. Company has surface hole dug on its well at Dickinson, Galveston County, for the Gillock Petroleum Co.

Cron and Gracey have two rigs running for the Barnsdall Oil Co. in the Iowa, Louisiana, Field, and three for the Shell Petroleum Corp. in the same field. They also have one rig running for Texas Co. at Manvel, one for the same company near Fordtran, Victoria County, and are preparing to move a rig into Smith County, East Texas, to drill three wells on their own properties.

San Patricio Drilling Co. is shut down waiting for orders on its well for the McCarthy Oil Co. at Danbury, Brazoria County, Texas. Depth is 6,538 feet.

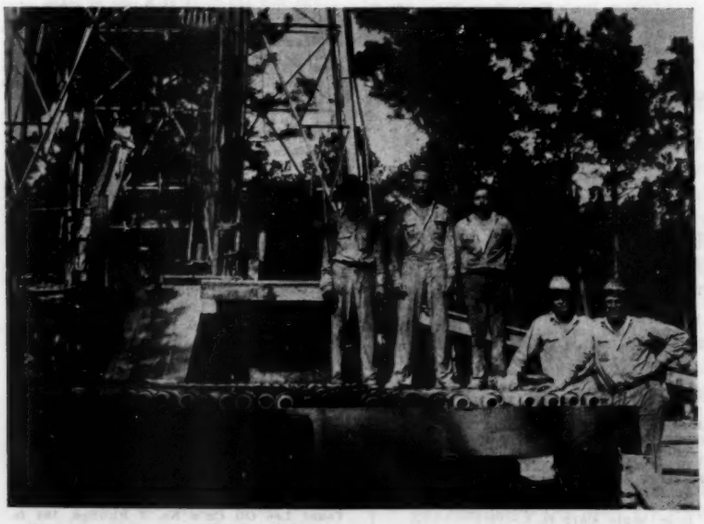
Rutherford Drilling Co. has a rig running for the Phillips Petroleum Co. at Vanderbilt, Jackson County.

Carl B. King has two rigs running for E. H. Moore and others in the Fitts Pool, Ada, Okla., and one rig running for the same operators on a wildcat in Pontotoc County, Oklahoma.

T. B. Cochrane is drilling a well for the American Liberty Oil Co. near Aldine, Tex. This is the second well in this area drilled for this company by the same contractor.

Talbot Drilling Co. has just completed a well for Halliburton & Meaders, 17 miles east of San Antonio, Bexar County, at 1,480 feet in the Cooksey sand.

Milam Drilling Co. has a contract to dig two wells for the Heep Oil Co. in the Fordyce Field, Hidalgo County, Texas.



Morning tour crew of the Alamo Drilling Co., Houston, Tex., contractors on No. 1 Laura Lackner for C. B. Bunte, Inc., San Antonio, Texas, which is drilling at Eureka Heights, just north of the Houston city limits. This well is scheduled to go to 7,350 feet unless production is encountered. It is reported to have had several oil and gas shows, and is running 78 feet high. Dezpite the number of cores taken, hole has been carried to 5,763 feet in 36 working days. Officers of the Alamo Drilling Co. are J. C. Means, Jr., president and M. C. McGehee, vice-president

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Gulf Coast Interest Centered on Dickinson Area; Two Wildcats Being Drilled Simultaneously

By F. L. SINGLETON
Gulf Coast Bureau, The Oil and Gas Journal

HOUSTON, Tex., Oct. 29.—Interest on the Gulf Coast is centered on the Dickinson area, Galveston County, where two wildcat tests being drilled simultaneously, are expected to prove definitely a new field within the next several days. These wells, Humble Oil & Refining Co.'s No. 1-B Maco Stewart and Pure Oil Co.'s No. 1 Shelor have reached the pay horizon from which Humble Oil & Refining Co.'s No. 1 Maco Stewart recently blew out after encountering heavy gas pressures. The latter well which caught fire destroying the derrick and rig, sanded up after running wild for several hours, and was junked and abandoned.

Humble Oil & Refining Co.'s No. 1-B Maco Stewart, the more advanced test of the two wells, approximately a half mile west and a little north of the blowout, topped the Frio at 7,899 feet. Eight cores have been taken from 8,017-70 feet, the total depth. Several showed good saturation. On the last core taken from 8,065-70 feet the operators recovered 5 feet, the first 2 feet being sandy shale and the next 3 feet sand which had a salty taste. The operators have plugged back to 8,025 feet with 40 sacks of cement, where they will probably make a drill stem test. The appearance of salt water at 8,070 feet is only 193 feet lower than the total depth of the company's No. 1 Maco Stewart. The operators attempted to make a drill stem test at 8,003 feet, but the seat failed to hold and 1,260 feet of mud was recovered with a slight show of oil and gas with no gas pressure. Based on top of the Frio, the test is 187 feet lower than No. 1 Maco Stewart.

Pure Oil Co.'s No. 1 Shelor, the other test located a half mile north of the blowout, topped the Frio at 7,780 feet and was drilled to 7,837 feet where the hole was found to be 7 degrees off vertical, and the operators plugged back from 7,550 to 7,250 feet and are now drilling below 7,341 feet in hard shale. Based on top of the Frio, it is running 68 feet lower than No. 1 Stewart, and 119 feet higher than No. 1-B Stewart. On the higher markers, the Discorbis and the Marginulina, this test has been running considerably lower than the other two tests.

Brazoria County

Turnbull and Irwin have made location for a 6,500-foot test on the Lockridge prospect in the northwestern part of Brazoria County, making a total of six wildcats in the county. Derrick is being erected on the Sutherland and Buck lease in the A. Robinson Survey, about 5 miles from Sandy Point. Location is 150 feet from the west line and center of the north and south lines of a 40-acre tract. Several tests have been drilled on this prospect, some of which have encountered encouraging shows of oil and gas, but failed to develop commercial production. In the old Ocean district, western part of the county, Harrison and Abercrombie's No. 1 Bernard River land is coring in shale at 8,564 feet. It topped the sand section at 8,457 feet which showed gas with an odor of oil. From 8,530-63 feet it cored sand with a good odor of gas and a slight cut of oil. It topped the Discorbis at 6,545 feet, the Heterostegina at 7,230 feet and the Marginulina at 7,600 feet. McCarthy Oil Co.'s No. 1 National Life Insurance Co., in the H. Austin League No. 4, is drilling below 6,538 feet in shale. On an electrical coring test taken from 2,200 to 6,500 feet it showed gas sand with a possibility of oil from 4,665-4,710 feet, and also showed sand, possibly carrying gas from 6,138 to 6,160 feet. Stanolind Oil & &Gas Co.'s No. 1 J. W. Surface, a recent location in the A.C.H.&B. Survey, Abstract No. 462, is rigged up ready to spud. On the east bank of Chocolate Bayou and South Liverpool in the L. Bachelor Survey No. 156, Amerada Petroleum Corp.'s No. 1 Houston Farm Development Co. is drilling in shale below 7,490 feet. Five miles southeast of Alvin in the eastern part of the county, C. & R. G. Drilling Co.'s No. 1 Frank Truska is drilling in shale below 7,508 feet. It is located on a 3,000-acre block.

Kittrell Field

In the Kittrell Field, south Houston County, Humble Oil & Refining Co.'s No. 2 Shaw, northeast of the discovery well, tested a shallow sand at 1,180 feet, and after running the swab 35 times, the operators recovered 10 bbls. of oil with a slight show of gas, but could not get the test to flow. It is now being carried to the Carrizo, and if it fails to make a producer it will be plugged back to the above depth and be completed for a small pumper. It is in the Charles McEllis Survey. The same company's No. 1 Texas Long Leaf Lumber Co., one-half mile north of the discovery well, is drilling in shale below 2,568 feet and will no doubt be completed for a dry hole.

Walker County

About 2 miles southeast of the discovery, in Walker County, another dry hole was marked up for the field when Ben G. Barnett abandoned his No. 1 W. A. Reynolds at 2,121 feet. It is in the L. R. Clapp Survey. Boone Brothers have started operations on their No. 1-A Texas Long Leaf Lumber Co. in the George Keilman Survey, about 3 miles southeast of their discovery in Walker County and are drilling below 1,176 feet in sand. The Trinity Development Co. has started operations on its No. 1 G. A. Knox, a wildcat located about 7 miles north of Boone Brothers' discovery well in the William Prissick Survey, and it is drilling below 1,375 feet in shale. In the northwestern part of Walker, Sun Oil Co. is reported to have paid 50 cents to $1 per acre for about 800 acres scattered throughout the area.

Austin County

In the southern part of Austin County, J. S. Wheelis, Jr. has made location for a 6,000-acre test on what is known as the Sealy prospect, 4 miles west of the town of Sealy and 11 miles west of the San Felipe Dome on the Austin-Waller County line. Derrick is being erected on the Louis Whittenberg lease on a 202.5-acre tract, 1,100 feet from the west line and 330 feet from the south line of Section 177, in the H.&T.C. Survey. It is 5 miles north of Gem Oil Co.'s No. 1 Walter Hedge, a dry hole abandoned in the Cockfield formation at a total depth of 6,230 feet.

Waller County

L. W. Smith and others have taken a block of approximately 3,000 acres in the western part of Waller County, along the Brazos River. It is reported a 4,500-foot test will be drilled 1½ miles from the river in the western part of the J. R. Garrett 1,000-acre tract.

Liberty County

Leasing and royalty buying continues at a feverish pace around Turnbull and Irwin's No. 1 Lynott and Buffum, an interesting wildcat being drilled 11 miles north of Liberty in Liberty County. It has been running several hundred feet high on every formation, and late in the week it was coring below 6,487 feet in shale. With an elevation of 40 feet, the Vicksburg was reported topped at 5,120 feet and the Hockleyensis at 6,270 feet.

Bishop Oil Co. was reported to have paid $1,000 for a one-fourth royalty interest under the J. M. Neal 58.3-acre tract and $1,000 for a one-fourth royalty interest under 61 acres, and $1,285 for a one-thirty-second of royalty under 857 acres all in the J. Robeson Survey. Texas Co. paid $40 per acre cash for 73 acres in the J. A. Williams Survey. W. W. Murphy was reported to have assigned to the Minerva Petroleum Corp. one-fourth of the royalty under the east 300 acres of the Murphy 914-acre tract in the J. Robeson Survey. Consideration was $1,000 cash. Earl Hankamer paid $20,000 cash for one-fourth royalty under the Lynott and Buffum 905-acre tract in the J. Robeson Survey. Rycade Oil Corp. paid $1,171.50 for a one-eighth interest under 49.2 acres of the J. C. Barfield 80-acre tract in the J. Robeson Survey, and S. O. Thompson Survey, and one-eighth royalty under the A. C. Smith 36-acre tract in the Hugh B. Johnson Survey. Atlantic Royalty Corp. was reported to have paid $3,325 for one-half of the royalty under the M. F. Tullos 133-acre tract in the Hugh B. Johnson Survey.

Pure Oil Co. has taken a block of approximately 8,798 acres on the Liberty-Chambers County line which takes in parts of the C. Dorsett Survey, Theodore Dorsett, Edward Darr, Victor Blanchett, B.B.B.&C. Surveys Nos. 1, 2 and 3, A. D. Mays, J. Dorsett, Charles Dorsett, Munro Dorsett and the Gibson Surveys.

Cleveland District

In the Cleveland Field, Liberty County, Gulf Production Co.'s No. 6-C Kirby has

Wildcat Operations on Gulf Coast

Week Ending October 27

RACCOON BEND—AUSTIN COUNTY

Humble O. & R. Co.'s No. 1 Hill, Wm. C. White Sur.
Location.

Humble O. & R. Co.'s No. 2 Remert.
Drlg. shale 4,072 ft.

Humble O. & R. Co.'s No. 6 Alberta Niemar, 525 ft. at R/A from NW line, 337 ft. at R/A from SW line, Wm. Harvey Sur.
Drlg. hard sand 3,985 ft.

Humble O. & R. Co.'s No. 10 J. C. Walton, 586 ft. at R/A from NE line, 375 ft. at R/A from SE line and 225 ft. NW of No. 4 Wm. C. White Sur.
Cmtd. surface csg. at 126 ft.; drlg. shale 3,933 ft.

DANBURY—BRAZORIA COUNTY

Shell Pet. Corp.'s No. 7 Blakely-Winston, 63 deg. 11 min. E, 5,540 ft. N, 26 deg. 49 min. W, 200 ft. from SW cor. of Blakely-Winston 560-acre tract, H.T.&B. Sur.
Rig up.

Shell Pet. Corp.'s No. 3 Haury, 800 ft. SE of No. 2 in line with No. 2 and No. 1 Blakely-Winston, H.&T.B. Sur. No. 13.
Coring sticky shale 3,640 ft.

DAMON MOUND—BRAZORIA COUNTY

Gulf Stream, Inc.'s No. 1 Cave Heirs, 160 ft. from N line and 60 ft. from E line of Lot C, Blk. 50, A. Darst Sur.
Location.

Esco's No. 1-D Wisdom, 25 ft. from S and W lines of Blk. D, Lot 5, A. Darst Sur.
Drlg. 1,916 ft.

Intercoastal Oil Co.'s No. 12 Wisdom, 90 ft. from N line and 35 ft. from W line of Lot A, Blk. 51, A. Darst Sur.
Drlg. 2,500 ft.

MANVEL—BRAZORIA COUNTY

Texas Co.'s No. 9-A Belcher, 1,650 ft. S, 42 deg. W, and 330 ft. N, 48 deg. W of E cor. of lease, H. N. Little Sur.
Cmtd. 10-in. csg. at 1,132 ft.; drlg. shale and lime 3,152 ft.

Texas Co.'s No. 2-A Casolo, 200 ft. N and 200 ft. W of SE cor. of lease, Chas. O'Donnell Sur.
T.D. 5,191 ft.; sidetracking 5,113 ft.

Texas Co.'s No. 1 Thomas James, 247.5 ft. N and 330 ft. E of SW cor. of Lot 1, A. C.H.&B. Sur. 91, Abst. 402.
Cmtd. 10-in. csg. at 1,127 ft.

Texas Co.'s No. 11 Houston Oil Field Association, 441.8 ft. W and 247 ft. N of SE cor. of Lot 9, A.C.H.&B. Sur., 91, Abst. 402.
Cmtd. 16-in. csg. at 42 ft.; drlg. sand and clay 431 ft.

Gulf Prod. Co.'s No. 4 Colby, 330 ft. out of most northerly NE cor. of 200-ac. tract, Thomas Sproggins Sur.
Drlg. gumbo 1,226 ft.

Texas Co.'s No. 7 Houston Oil Field Assn., 247.5 ft. S and 441.9 ft. W of NE cor. of Lot 8.
Drlg. shale 4,012 ft.

Texas Co.'s No. 1-A Massey, 330 ft. out of NW cor. of 33-ac. tract in H. Stevens Sur.
Drlg. shale and lime 7,850 ft.

PLEDGER—BRAZORIA COUNTY

Danciger O. & R. Co.'s No. 4-A Hurt, 200 ft. SW of No. 3-A, W. C. Carson Sur.
T.D. 6,820 ft.; trying to complete.

Humble O. & R. Co.'s No. 1 Bob McFarland, 535 ft. S, 1,900 ft. W of SE cor. W. C. Carson Sur.
Drlg. sand 6,866 ft.

STRATTON RIDGE—BRAZORIA COUNTY

Amerada Pet. Corp.'s No. 1 Bowers, 2,400 ft. N line and 1,550 ft. from E line of Jared Groce Sur.
Drlg. sandy lime 2,940 ft.

WEST COLUMBIA—BRAZORIA COUNTY

Texas Co.'s No. 84 Hogg, 2,483 ft. N, 50 ft. W from SE cor. of lease in M. Varner Sur.
Temporarily S.D. 5,242 ft.

BARBERS HILL—CHAMBERS COUNTY

McAlbert Oil Co.'s No. 7 J. F. Wilburn, 150 ft. W of No. 6 and C of H. Griffin Sur.
Running 10¾-in. csg. 3,636 ft.

Mills Bennett Prod. Co.'s No. 2 Fisher, 150 ft. N of No. 1, Wm. Bloodgood Sur.
Swbd. S.W.; pulling screen; T.D. 5,466 ft.

Mills Bennett Prod. Co.'s No. 10 Wilburn, 150 ft. S N line, 150 ft. W of No. 9, Henry Griffith league.
Comp.; no gauge; T.D. 4,861 ft.

Moody Corp.'s No. 1-C E. W. Barber, 302 ft. from N line and 312 ft. from E line of "B" lease, H. Griffith Sur.
Cmtd. 24-in. csg. at 60 ft.

Humble O. & R. Co.'s No. 7-B Kirby, 200 ft. W of No. 6 in Henry Griffith league.
Drlg. rock 1,648 ft.

Sun Oil Co.'s No. 6 Higgins, 302 ft. W of E line and 432 ft. N of S line of lease.
Reaming 3,310 ft.

Sun Oil Co.'s No. 10 Chambers, 50 ft. from N and W lines of lease.
Drlg. shale and lime 3,394 ft.

Sun Oil Co.'s No. 17 Wilburn fee, 183 ft. E of W line and 40 ft. S of N line and 126 ft. W of No. 16.
Derrick.

Sun Oil Co.'s No. 22 J. Wilburn, midway between wells No. 17 and 21, or 150 ft. from each well.
Fishing 3,257 ft.

Texas Gulf Prod. Co.'s No. 4-B E. W. Barber, 75 ft. S of Moody Corp.'s No. 6-A Barber and 75 ft. from SW line of 38-ac. lease, H. Griffith Sur.
Drlg. salt 1,979 ft.

Texas Gulf Prod. Co.'s No. 5 J. F. Wilburn, 110 ft. W of No. 3 and 50 ft. N of S line of lease, Wm. Hodge Sur.
Top lime 3,944 ft.; drlg. lime 3,946 ft.

Texas Gulf Prod. Co.'s No. 3 O. W. Winfree, 595 ft. S of N line and 50 ft. W of E line of lease.
Drlg. shale 4,429 ft.

Yount Lee Oil Co.'s No. 25 Chambers County, 75 ft. S, 50 ft. W of NE cor. of lease.
Drlg. sand and shale 3,750 ft.

Yount Lee Oil Co.'s No. 27 Chambers Co., 400 ft. W of No. 24 and in line with Nos. 24 and 21.
Derrick.

Yount Lee Oil Co.'s No. 28 Chambers County, 50 ft. N S line, direct offset to Sun's No. 10 Chambers County, Wm. Bloodgood Sur.
Derrick.

Yount Lee Oil Co.'s No. 9 Phillips, 100 ft. W of No. 8.
Sand and shale 3,636 ft.

BIG CREEK—FORT BEND

Edwards Drlg. Co.'s No. 2 Hausler, 500 ft. SW from No. 1 and 100 ft. from SE line of 103.5-acre tract, Barnabas Wickson Sur.
Digging cellar.

BLUE RIDGE—FORT BEND COUNTY

Mills Bennett Prod. Co.'s No. 2 Luscher,

(Continued on Page 61)

extended production several hundred feet west through a three-eighths inch choke. It flowed 350 bbls. in 24 hours with tubing pressure 1,200 pounds. It is west of the company's No. 5-C Kirby in the James Eldridge Survey, and makes the fourth producer for the field. Seven-inch casing is at 5,837 feet and bottom of hole is 5,875 feet.

Polk County

The Livingston Field, Polk County, received another producer during the week, when Sun Oil Co. completed No. 1 Pratt in the A. Viesca Survey. It is flowing around 17 bbls. of oil with tubing pressure 750 pounds and casing pressure 850 pounds. It was originally drilled to a total depth of 4,315 feet and was plugged back to 4,244 feet. B. M. York and others have started their No. 1 Kingsbury County Holding Corp. and are drilling in surface formation at 70 feet. Location is 750 feet southeast of J. Z. Werby and others' No. 1 Dick and Failing or center of Tract 18, east and west and 420 feet from the north line. In the same county, but just north of the town of Corrigan, George Pace has assembled 2,800 acres in the J. M. Dian and William Jacobs Survey and will drill a test to the Wilcox formation, to be started by November 21. It is reported Dick Schwab is interested in the block. W. H. Leggett of Livingston is trying to assemble a drilling block just north of Goodrich centering around the John T. Pinkney and Thomas Stubblefield Surveys. The block joins the Texas Co.'s fee block on the south, and to date approximately 1,200 acres has been assembled.

Wharton County

Three miles east of Louise, Wharton County, the wildcat of Texas Gulf Producing Co.'s No. 1 Kresta has been abandoned in heaving shale at 6,908 feet. Location is in Section 54, W. B. Ivey Survey.

Harris County

Two wildcat tests in Harris County have reached interesting depths. American Liberty Oil Co.'s No. 1 J. J. Sweeney in Block No. 4, W.C.R.R. Survey, is drilling in shale below 6,003 feet. With an elevation of 113 feet it topped the Hockleyensis at 5,485 feet. Near the northwest city limits of Houston in the Henry Reinerman Survey, C. B. Bunte, Inc.'s No. 1 Laura Lackner is drilling in shale below 5,000 feet. On an electrical coring test it showed oil sand from 3,650-60 and 3,695-3,708 feet, with a gas sand at 3,497-4,007 feet.

Orange County

In the Port Neches area, Orange County, Port Neches Petroleum Corp. has made location for a semiwildcat on the W. E. Organ and others lease in the A. Schramm Survey, Abstract No. 259. Location is 450 feet from the northeast line and 150 feet from the northwest line of the survey.

SOUTH LOUISIANA

In the Gillis area, Calcasieu Parish, Louisiana, Union Sulphur Co.'s No. 2 Barbe, the discovery well, continues to show improvement, and the last report was that it was making around 200 bbls. of net oil per day, and showing 14 per cent salt water with tubing pressure increasing from 400 to 700 pounds. It is still flowing through a one-quarter inch choke and definitely establishes a new field. Location is on a 7,000-acre block in Section 11-9s-8w. The same company's No. 1 State Land, three-quarters of a mile northeast, is drilling in shale below 5,096 feet.

Whitstone Oil & Gas Co.'s No. 1 C. Buckley, in the Bay St. Elaine district, Terrebonne Parish, Section 35-19s-16e, created some excitement the latter part of the week when it tried to blow out from 3,049-3,053 feet, while the operators were attempting to make a drill stem test. Six and five-eighths inch casing will be cemented and a test made. There was no gauge or chokes on the testing device when the well tried to blow out.

The Hackberry Field, Calcasieu Parish, got another producer when Gulf Production Co. completed No. 15 M. P. Irwin for an initial production of 500 bbls. through a five-sixteenths inch choke. It is in Section 12-12s-10w. The company has made location for No. 6 M. P. Irwin. Location is 770 feet from the north line and 800 feet from the west line of the SE cor. Section 12-12s-10w.

Roanoke Field

Humble Oil & Refining Co. is starting another test in the Roanoke Field, Jefferson Davis Parish. It is located on the R. C. Jarnigan tract, a half mile due south of Shell Petroleum Corp.'s No. 1 Jarnigan. It is 440 feet east of the NW cor. SE Section 12-9s-4w. The company was preparing to bring in No. 1-B J. W. Devilbiss which will make the second producer in the field. Nine and five-eighths inch casing was cemented at 7,771 feet and the operators were preparing to drill plug. It is bottomed at 7,918 feet. On a drill stem test made early in the week it tested 540 feet of oil and mud, with no salt water present. It is on the north 320 acres of the 640 acres of the Devilbiss land. The company's No. 3 Devilbiss on the south of 320 acres of the same tract is preparing to sidetrack after being drilled to 8,746 feet.

Bosco Field

In the Bosco Field, Acadia-St. Landry Parishes, Superior Oil Producing Co. made location for two more tests. No. 1 R. Herbert is 2,095 feet south and 2,058 feet east of the NW cor. Section 35-8s-3e, and the operators are building foundation. No. 5 Larcade is 1,665 feet south and 483 feet east of the NW cor. Section 35-8s-3e. The company is preparing to complete No. 1 L. Johnson in Section 34-8s-3e, 7-inch casing being cemented at 8,627 feet and the operators are running tubing. It is bottomed at a total depth of 8,650 feet.

Two wells in the Iowa Field, Jefferson Davis Parish, were completed by Shell Petroleum Corp. The company's No. 3 Ardoin, in Section 18-19s-6w, was completed for an initial production of 702 bbls. through eighteen-sixty-fourths inch choke in 24 hours, with tubing pressure 875 pounds and casing pressure 1,050 pounds. No. 1 Scott flowed 1,186 bbls. in 24 hours through a twenty-three-sixty-fourths inch choke with tubing pressure 1,280 pounds and casing pressure 1,275 pounds. It is bottomed at a total depth of 7,003 feet.

ALBERTA SEEKS OIL REVENUE

OTTAWA, Canada, Oct. 27.—A commission headed by Mr. Justice A. K. Dysart, of Manitoba, last week heard the claims of the Alberta provincial government for compensation in connection with the federal administration of the natural resources of the province prior to the transfer of these resources on October 1, 1930. The claims chiefly arise from the handling of oil and gas rights. The commission after a partial hearing adjourned till November 19 to allow Alberta to complete its case on petroleum and natural gas.

G. S. BUSSELL DIES

OLEAN, N. Y., Oct. 29.—Gilmore S. Bussell, former vice president and field manager of the Producers Gas Co. of Olean and a well-known oil producer, died recently. Mr. Bussell was born in 1845. In his early youth, soon after the Drake well was started, Mr. Bussell worked in the oil fields near Pittsburgh, Pa., and in 1879, when the oil fields in Bradford, Chipmonk and Rock City started, he came to this city and held extensive oil holdings in the vicinity.

PAUL E. BILLS DIES

Paul E. Bills, formerly employed by the Sinclair Oil & Gas Co. in Tulsa, died on board a steamship en route from Maracaibo, Venezuela. He had been in South America 11 years. The body will be sent to the home of his parents, Mr. and Mrs. W. G. Bills, at Williamstown, W. Va.

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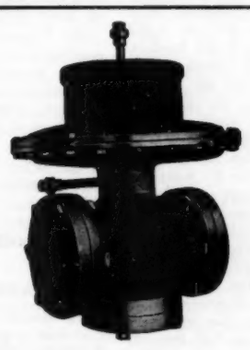

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The Chaplin-Fulton Manufacturing Co.
28-40 Penn Avenue Pittsburgh, Pa.

Oriskany Producer in Kanawha County, W. Va., Is Making 80 Bbls. Daily and Going Deeper

By STAFF CORRESPONDENT

PITTSBURGH, Pa., Oct. 29.—The Oriskany sand producer on Cooper's Creek in Elk district, Kanawha County, West Virginia, has now been cased and is producing about 80 bbls. a day with that formation barely penetrated. It is reported it will be drilled deeper. North of this well on the W. L. Burdette farm, and about 4,000 feet up Cooper's Creek, a second well is being drilled scheduled for the Oriskany sand. It is on the Copen heirs farm and is drilling below 1,000 feet. It appears to be up the formation.

There were an unusual number of tests which resulted in dry holes in the lower eastern fields. Twelve were dry and completions consisted of six gas wells and six producers with an initial production of 84 bbls. Ritchie County, West Virginia, is still the most active sector, and one test seems to extend the Pike Pool about 1,600 feet. There was but one producer completed in Southeast Ohio.

SOUTHEAST OHIO

In Coshocton County, Ohio Gas Light & Coke Co. completed a second test on the G. S. Ruess farm in Section 10, Mill Creek Township, in the Berea sand at 900 feet. It is showing for about 120,000 feet a day. In Clarke Township, Lot 8, Mehowa Oil & Gas Co. drilled a second test on the Solomon Haun heirs farm through the Clinton sand to 3,650 feet. It is a dry hole.

In Guernsey County, Frank Lyons drilled a test on the Fannie Dillon farm in Section 32, Millwood Township. It is a dry hole in the Berea grit at 1,512 feet with the sand showing badly broken.

In Medina County, E. R. Edson & Son Co. completed No. 41 on the M. A. and Eva Franks farm, Tract 16, Lot 20, Chatham Township, in the shallow Berea grit at 480 feet. It was dry.

In Meigs County, Meigs Developing Co. completed a test on the S. Aumiller farm, NE Section 30, Lebanon Township. It was drilled in the Berea sand, 1,945 feet, and is a gas well with about 360,000 feet a day. In Sutton Township, Southern Ohio Gas Co. drilled No. 6 on the William J. Krider farm in the west part of Lot 1,218 in the Berea sand at 1,811 feet. It is showing for about 4 bbls. a day, after shot. In NE Section 11, same township, James Simpson drilled a second test on the Rena E. Karr farm through the Cow Run sand to 632 feet. It is dry.

In Perry County, Mid-East Gas Co. completed a test on the Leonard Noll farm, SE Section 13, Reading Township. It was drilled in the Clinton sand at 3,136 feet and is a gas well gauging 1,000,000 feet a day with about 1 bbl. of oil.

In Vinton County, Wittmer Co., Inc., drilled a test on the V. S. and Jennie C. Finney farm, SE Section 1, Swan Township, through the Clinton and Medina sands to 3,017 feet and it was dry.

In Washington County, Frank C. Buhl drilled a test on his own farm on Whipple Run on Lot 124, Fearing Township, through the First Cow Run sand to a depth of 515 feet. It was dry.

WEST VIRGINIA

There were five producers completed in West Virginia, the largest being a test in Clay district, Ritchie County. About 1,600 feet northwest of the town lot drilling in the lower Pike Pool, H. N. Rinehart completed a test on the George Millbarger farm in the Injun sand at 1,800 feet and it is showing for about 50 bbls. a day.

In the Pike Pool proper in Clay district, Ritchie County, Kelly Farm Oil Co. completed a second test on the J. F. and Laura Kelly farm in the Injun sand showing for 25 bbls. a day from the First pay. There were also two dry holes in the district. A. R. Kelley and others drilled a test on the John Wigner farm through the Injun sand and it was dry. Athey and Yeager drilled a test on the W. H. Yeager farm through the Injun sand to 1,967 feet and it was also dry.

In Murphy district, Ritchie County, T. H. Hanley completed a test on the D. M. Miller farm in the Injun sand at 2,215 feet. It will make about a 2-bbl. pumper.

In Hancock County, R. J. Braden Co. completed No. 14 on the J. C. Hamilton farm along the Ohio River in Grant district in the Berea sand at 1,235 feet. It will make a 2-bbl. well. In Clay district on the waters of Kings Creek, Carl E. and Elizabeth Hahn completed No. 20 on the John Linduff farm in the Berea sand and it will make about a 1-bbl. well. The top of the Berea sand was at 1,272 feet and the total depth 1,300 feet.

Gas Wells

In Cabell County, R. H. Adkins, trustee, drilled a test on the Nando Johnson farm in McComas district in the Berea sand at 2,027 feet. It is a gas well gauging about 320,000 feet a day. The Big Lime extended from 1,248 to 1,418 feet; the Big Injun sand from 1,462 to 1,545 feet and the top of the Berea sand was at 2,000 feet.

In Gilmer County, about 1,800 feet southeast of Hope Gas Co.'s well on the J. R. Simmons farm, Kenney M. Hunt and others completed a test on the J. R. Simmons farm in Center district in the Berea sand at a depth of 2,364 feet. It will make a fair gas well.

In Wirt County, Jesse Mason and others drilled a test on the C. Nelley heirs farm in Burning Springs district through the Injun sand to 1,970 feet. It is a gas well gauging about 400,000 feet a day.

Drilling in West Virginia

In Boone County, Hope Natural Gas Co. has acquired the leases of Godfrey L. Cabot, Inc., in Sherman district and is drilling No. 54 on the Federal Coal Co. lease which had been started. It is down 2,767 feet. In this district Pure Oil Co. is drilling at 503 feet No. 70 on the Federal Coal Co. tract, same district, and has reached 2,114 feet in the second test on the Pocatello Coal Co. tract in Crook district. In Washington district, Godfrey L. Cabot, Inc., has reached 1,870 feet in the second test on the White and Hopkins lease. Pond Fork Oil & Gas Co. is down 200 feet in No. 19 on the Cole and Crane lease.

In Calhoun County, Park Bowser has started drilling on the Dora E. Ramsburg farm in Center district. In Washington district, Carroll and Hamilton are building a rig on the E. C. Knotts heirs farm. W. B. Reed and others are down 1,485 feet on the Curtis and Ella May farm. Godfrey L. Cabot, Inc., is rigging up on the G. W. Truman farm. Harley Jarvis is down 1,150 feet on the Clark Wilson farm. In Lee district, Jarvis and Ayers have rig completed on their own property, and have also reached 1,970 feet on the Roanna Robinson farm. F. F. McIntosh is down 1,400 feet on the E. L. Hays farm. In Sherman district, this operator is drilling No. 1 on the Seymour Settle farm and has reached 1,000 feet. I. B. Fowler is down 1,640 feet on his own farm. In Sheridan district, Harley Ferrell and others have reached 700 feet on the T. J. Jackson farm, a test. Bickerstaff and others are down 850 feet in No. 5 on the William Cooper farm. In the same district, Ritchie Oil Co. has made a location for No. 8 on the B. S. Raybuck farm.

In Doddridge County, A. M. Greathouse is drilling on his own property in New Milton district and has reached 950 feet. In McClellan district, W. D. Gribble is pulling 6⅝-inch casing in the second test on the M. J. Smith farm which reached 2,050 feet.

In Gilmer County, A. E. Ellis and others are drilling on the Edward Reynolds farm in DeKalb district which has reached 325 feet. In this district, McCall Drilling Co. is down 640 feet on the G. W. Wigner farm. T. M. Cain and others have reached 450 feet on the Harriet Gainer farm. In Center district, McCall Drilling Co. has reached 825 feet on the M. S. Cawthorn farm, No. 2.

Kanawha County

In Kanawha County, Lincoln Gas Co. has started drilling No. 6 on the Whittaker tract in Elk district. Valley Gas Co. is down 1,350 feet in a second test on the G. W. Harless farm, same district. In Malden district, Godfrey L. Cabot, Inc., has two wells drilling. No. 7 on the Campbells Creek Coal Co. lease is drilling at 2,340 feet and No. 8 at 875 feet. In Cabin Creek district, this operator has reached 1,084 feet in No. 47 on the A. D. Huntington farm and 615 feet in No. 48.

In Lincoln County, Harvard Gas Co. is drilling a deep test on the Standard Fuel Gas Co. property in Washington district and has reached 4,400 feet and shut down cementing. In Mingo County, F. H. Yates is down 1,240 feet in the second test on the Richard Vance and Georgia Workman farm in Harvey district.

In Marion County, Maxon Oil & Gas Co. is drilling on the Ash heirs farm in Mannington district and has reached 750 feet. Monroe and Laughlin reached 650 feet in No. 3 on the A. D. Wells farm and shut down.

In Ritchie County some new work is noted in the Pike Pool. Cottrell and others have a rig standing for No. 4 on the M. S. Riggs farm where there have been some heavy producers. Smith and Hendershot have a location for a second well on the Charles Wilcox, Sr., farm. C. L. Donaldson and others reached 550 feet on the J. P. Strickler farm and shut down. Rinehart and others are drilling on the A. J. Glass farm. In the Lost Run Pool, Clay district, Boehm & Strickler Oil Co. is spudding in No. 7 on the Boehm & Strickler farm about 150 feet northeast of No. 3.

In other parts of Ritchie County, new work is listed. Clem S. Morris has made a location on the Morris and Carder farm in Murphy district. In this district J. F. Deem is building a rig on the C. J. Williamson farm. Clem S. Morris has made a location on the M. S. Drake farm. W. H. Bickle is down 1,150 feet on the S. Hardman farm. L. P. Bickle is reaming at 400 feet the No. 3 on the P. W. Morris farm.

Roane County

In Roane County Guy Boggess and others have started drilling on the Darle Young farm in Smithfield district, about 800 feet east of the test on the O. M. Young farm. In this district United Fuel Gas Co. is down 620 feet in No. 4,536 on the T. Ferrell farm. Sand Run Oil & Gas Co. has reached top of the sand in the second test on the Josephine Young farm. In Curtis district, K. M. Hunt and others are building a rig on the Lizzie Moore heirs farm. In Spencer district, J. D. Silcott and others shut down for casing on the John B. Lukens farm at 1,880 feet.

In Wayne County, on the waters of Patrick Creek in Butler district, Edward Oil & Gas Co. has started drilling No. 3 on the Albert Ronk farm about 1,500 feet southeast of No. 1, same farm. In Stonewall district, C. L. Dixon is drilling a deep test on the Charles Jones farm and has reached 4,450 feet.

In Wetzel County Hannibal Gas Co. has started drilling on the James S. Haudenschildt farm in Proctor district. George N. Yoho and others have started drilling on the George A. Smith farm, same district. Jason Wade and others have reached 1,380 feet on the Joseph Shuler heirs farm, and shut down at 200 feet on the Lewis Taylor farm. In Center district, Blank Oil & Gas Co. has reached 2,050 feet on the James Garrett farm.

In Wirt County, Burning Springs district, L. B. Carroll and others have rigged up on the D. P. Ferree farm. On the waters of Straight Fork, Glen Roberts has started drilling on the Jacob Phillip heirs farm. In Union district, Wood County, J. B. Yeager and others have made a location on the W. B. Wamsley farm.

SOUTHWEST PENNSYLVANIA

There were no completions in Southwest Pennsylvania. There was, however, one dry hole. In East Findley Township, Washington County, Union Gasoline & Oil Corp. drilled deeper No. 1 on the J. S. Hazlett farm which has been a gas well in the Thirty-Foot sand to the Fifth sand at 2,917-50 feet. This formation was tested and found dry and the hole is being plugged. In this township, Myers, Hoskinson and others have started drilling on the M. C. Francis farm about 1,000 feet south of Sprowls No. 2.

In Franklin Township, Washington County, Carnegie Natural Gas Co. has reached 2,815 feet in drilling deeper No. 1 on the S. A. Dague farm. The Thirty-Foot sand was at 2,750-83 feet with no gas showing. This well will be drilled to the Fifth sand oil production.

In Amwell Township, Washington County, Manufacturers Light & Heat Co. reached 1,596 feet on the R. A. Rankin farm. The Salt sand was between 1,552-1,630 feet with about 90,000 feet of gas showing at 1,596 feet. Carnegie Natural Gas Co. has not started No. 2 on the M. C. Manon farm nor the test on the Robert M. Carrons farm.

In Greene County, Wasmuth & Callahan have reached 1,627 feet in drilling deeper No. 1 on the Mary Bell Durbin farm in Richhill Township. In this township, No. 3 on the T. M. Ross farm, being drilled by Guy Patterson, has reached 1,850 feet. In Dunkard Township, the Vance leases are down 1,600 feet on the James and Willis Vance farm. The Gas sand was at 1,540-55 feet and both gas and water showed.

In Cecil Township, Washington County, Potts Brothers are down 400 feet on the Charles Surhart farm. Amon and Kaufman and others are drilling on the Thomas Weaver farm and have reached 600 feet. In Chartiers Township, McCloy & Co. are drilling at 1,300 feet on the James Allison farm.

Winter Demand for Gas in California Likely to Increase Problem of Crude Oil Curtailment

By L. P. STOCKMAN
Staff Correspondent, California Fields

LOS ANGELES, Calif., Oct. 29.—Within another few weeks operators in California will find it necessary to begin increasing production of natural gas to meet the demand required each winter for heating purposes. This is of special importance at the present time because in stimulating production of natural gas operators will likewise increase production of crude oil despite the fact that many of the wells which will be opened up have a very high gas-oil ratio. During the summer months these wells have been shut in due to decreased demand for natural gas. For several years past operators in the Ventura Avenue Field have adopted the policy of underproducing during the summer months and overproducing during the winter in order to meet the increased demand with the advent of cooler weather. This policy has proven very successful because it substantially reduces gas waste and permits operators to meet the peak load during cold winter months. This problem has not been given the attention that it deserves during the past several months as the curtailment committee has been concentrating its efforts in order to effect maximum curtailment of crude oil production. It is quite likely, however, that serious consideration will be given the problem when establishing the allowable production of crude oil for the next several months.

There does not appear to be any serious prospect of a gas shortage in California for the next several years, but it is imperative that equitable adjustment be made in the distribution of natural gas in order that each and every field shall receive a fair share of the outlets. This adjustment seems necessary in order to reduce gas waste and by so doing preserve it for future use both in the field for its energy and subsequently as a domestic fuel. Adjustment of outlets is also necessary because it is quite obvious that some fields would suffer inequities if not privileged to participate in the total demand for natural gas as this would reduce allowable crude oil production, since some natural gas is produced along with the crude, unless the gas produced is blown to the air. The State is anxious to reduce gas waste to a minimum in order to prolong the supply of this natural resource and it seems logical to assume that the Federal Government and the Central Committee of California Oil Producers will conform with the desires of the State.

Demand Increasing

Up to the present, climatic conditions have not been such as to stimulate gas consumption but the existing warm weather will give way to slightly cooler weather within the next fortnight or so. The Central Committee of California Oil Producers has been giving serious consideration to the natural gas problems during the past few weeks and it is quite probable that future allocations will reflect the outcome of conferences held up to date. In many cases operators will be able to regulate the production of crude oil and natural gas so that they can meet winter demands but in some fields this is impractical due to operating conditions.

Extension of natural gas pipe lines to the San Francisco Bay region and as far south as San Diego during the past few years has substantially reduced the utilization of gas oil and fuel oil which for many years were used for heating purposes and for the manufacture of artificial gas. The transfer from artificial to natural gas has obviously worked to the detriment of refiners in general and to most crude oil producers by reducing the demand for fuel and gas oil. This has been intensified by the fact that the Milham Exploration Co., discoverer of the Kettleman North Dome and the Buttonwillow gas field, but has priority rights for the delivery of natural gas to the Pacific Gas & Electric Co. for a period of years.

Priority Rights

The priority rights of the Milham Exploration Co., recognized during organization of the Kettleman North Dome Association and justified in view of its tremendous discoveries, has certain merits especially since the Pacific Gas & Electric Co. laid a natural gas pipe line from Buttonwillow to San Francisco on the basis that it would be assured an ample supply to justify the installation. It might not be amiss to call attention to the fact that this transmission line was predicated on the potential which Milham had built up in the Buttonwillow gas field. After the signing of this contract, Milham opened up the North Dome of Kettleman Hills and the line was routed via this field in order to take delivery of Kettleman natural gas instead of opening up Buttonwillow. Milham's contractual obligations can be fulfilled by opening up the Buttonwillow gas field but this company has accepted the alternative of making its requisite deliveries from the North Dome rather than open up Buttonwillow and thus force other operators in the North Dome to blow their natural gas to the air or reduce crude oil production to such a low point that this wastage would be eliminated.

Considerable opposition has arisen to existing methods of allocating production of natural gas as this has obviously reduced the use of fuel and gas oil. It might not be amiss to say that this opposition is not limited to a few small independent refiners as one or two of the larger companies feel the same way. A number contend that natural gas purchases should be made ratably and thus each field and every operator would be entitled to an equitable share of the normal demand. This contention is apropos in view of the fact that development work has been retarded in certain fields in order to enhance curtailment and that these operators now find themselves unable to participate in the gas demand to the fullest extent. In one instance drilling operations are being carried on because of lease requirements as the leases in question provide that all development work must be concluded within a certain specified period of time.

Mountain View

California operators maintained the pace this week they set a month or two ago and consequently another large group of new wells was listed for completion. The Mountain View Field of Kern County headed the list by yielding two new wells and unless something unforeseen develops this field will show some additional completions next week. The Hogan Petroleum Co., headed by Dana Hogan, carried off drilling honors in this field by finishing both of the two new wells chalked up during the current week. These two new wells were No. 3 Wharton and No. 4 Porter-Day, both of which offset the Barnsdall's No. 1 Mott, completed several weeks ago. No. 3 Wharton was brought in flowing 1,400 bbls. of clean 28.9 gravity oil and 1,100,000 feet of natural gas per day from 6,289 feet. No. 4 Porter-Day registered an initial daily production of 1,210 bbls. of exceptionally clean 29.1 gravity oil and 1,300,000 feet of natural gas. This well was bottomed at 6,165 feet and finished with a 4½-inch liner carrying 83 feet of perforated and an 8⅝-inch water string landed and cemented at 6,063 feet.

Drilling operations are showing an up trend in the Edison Field following successful completion of the Edison Oil Co.'s large completion last week, although it is quite obvious that operators are concentrating operations in territory that is generally admitted to be at least partially proved up. For several weeks operators were drilling tests in widely scattered areas but a few abandonments removed a lot of the enthusiasm and resulted in concentration of efforts. The Lee Oil Co. has the makings of what appears to be a potential producer in No. 1 Seale, although it will require a little more hole before any definite estimate can be made as to its potentialities. At present it looks rather promising and may bear watching. The Texas Co., which acquired a lease on 360 acres in the Edison Field a few weeks ago, has not yet started drilling operations but will probably do so within the next few weeks. The company has until November 15 to begin work and consequently has plenty of time to get under the gun. The Monterey Exploration Co. has staked several new locations in this field and it seems logical to assume that at least one of these potential wells will be started in the immediate future.

Seal Beach

The Associated Oil Co. got a very pleasant surprise early this week when No. 12 Bryant in the Seal Beach Field of Los Angeles Basin was recompleted flowing 1,603 bbls. of clean 28.8 gravity oil and 900,000 feet of natural gas per day. This well, a former upper zone producer, was redrilled and deepened to the McGrath zone at 6,647 feet and the hole finished with a 5-inch liner, including 643 feet of perforated. This is the best well finished in the Seal Beach Field in several years. Preparations are under way to rig up No. 13 Bryant, which will be deepened to the McGrath zone with the expectation of recompleting another good producer. Two new wells were chalked up in the Santa Fe Springs Field this week and a check of development work under way indicates the probable completion of one or two more within the next 15 days. The Texas Co.'s No. 6 Wickman proved to be the best well finished this week, as it showed an initial daily production of 287 bbls. on the beam following completion at 5,659 feet. The Union's No. 70 Bell was somewhat of a disappointment upon completion at 4,546 feet, as it only showed an initial of 59 bbls. of clean 31.2 gravity oil.

James Pollard stirred up a hornet's nest this week by requesting the rezoning of 300 acres in the Rancho Rincon de Los Bueyes in order to permit the drilling of a test well. Property owners immediately started a series of petitions to prevent the lifting of restrictions, and from past experience it appears that Mr. Pollard is wasting his time. The Standard Oil Co. tried to get the restrictions lifted several years ago without success despite the fact that the case was taken to court by the Marblehead Land Co., owner of the property in question. The court ruled that the restrictions would stand until changed by proper authority. Two wells were put on production in the Long Beach Field this week, but neither showed substantial production. The Bolsa Chica Oil Co.'s No. 1 Mutual, however, showed favorable production upon being plugged back to 2,850 feet. This rejuvenated well was returned to production pumping 289 bbls. of 22.6 gravity oil cutting 5 per cent after the casing had been perforated at 2,750-2,800 feet. The R. R. Bush Oil Co.

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	Oct. 14		Oct. 7			
Intercoastal-domestic—	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Fuel oil	169,651	24,236	68,064	9,723	10,670,184	1,845,465
Diesel and gas oil	.....	.....	.....	.....	1,098,288	1,200,559
Gasoline	189,156	27,022	115,918	16,560	6,138,359	8,782,668
Kerosene	.....	.....	.....	.....	798,453	618,966
Asphalt	.....	.....	.....	.....	70,019	12,179
Other finished oil	.....	.....	.....	.....	54,778	90,557
Other unfinished oil	.....	.....	.....	.....	.....	72,584
Foreign exports—						
Crude oil	113,015	16,159	169,741	24,249	6,277,581	5,798,762
Fuel oil	485,136	69,305	245,257	35,037	10,442,766	6,453,049
Diesel and gas oil	39,571	5,653	136,317	19,474	3,232,005	2,649,992
Gasoline	235,263	33,609	79,960	11,423	3,593,009	4,669,820
Kerosene	87,444	12,492	.....	.....	1,446,391	1,581,984
Other finished oil	.....	.....	.....	.....	37,955	12,086
Other unfinished oil	.....	.....	3,070	439	224,275	66,375
Coastwise-domestic—						
Crude oil	480,966	68,709	223,167	31,881	6,934,565	5,764,921
Fuel oil	107,326	15,332	252,227	36,032	7,513,325	8,028,513
Diesel and gas oil	18,613	2,659	11,428	1,633	583,100	897,112
Gasoline	399,284	57,041	160,110	22,873	10,238,844	10,137,262
Kerosene	8,084	1,155	.....	.....	124,330	155,103
Naphtha distillates	.....	.....	.....	.....	.....	27,651

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

Intercoastal-domestic—						
Fuel oil	.....	.....	.....	.....	110,650	.....
Diesel and gas oil	.....	.....	.....	.....	526,288	511,897
Gasoline	.....	.....	.....	.....	290,825	804,548
Kerosene	.....	.....	.....	.....	276,412	482,430
Lubricants	.....	.....	.....	.....	34,695	33,934
Foreign exports—						
Crude oil	.....	.....	70,160	10,023	1,562,861	1,542,286
Fuel oil	16,101	2,300	41,665	5,952	1,638,973	1,562,213
Diesel and gas oil	.....	.....	62,098	8,871	1,147,948	835,257
Gasoline	.....	.....	.....	.....	2,411,704	3,382,787
Kerosene	.....	.....	.....	.....	876,266	541,225
Lubricants	.....	.....	.....	.....	143,157	101,472
Other finished oil	.....	.....	.....	.....	2,760	2,745
Other unfinished oil	.....	.....	.....	.....	5,750	26,273
Coastwise-domestic—						
Fuel oil	64,840	9,263	32,960	4,709	4,392,562	2,874,900
Diesel and gas oil	.....	.....	.....	.....	119,038	159,322
Gasoline	59,543	8,506	170,736	24,391	4,272,504	3,328,427
Kerosene	3,819	546	5,831	833	74,455	95,204

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recompleted its No. 4 Bess after redrilling and deepening the hole to 5,368 feet, from which depth the well was returned to production pumping 134 bbls. of 27.8 gravity oil per day.

Santa Barbara

Three new wells were finished in the Santa Barbara Mesa Field during the current week but, in contrast with recent completions, none of the trio showed substantial production. These new wells were the Allied Petroleum's No. 15 Mesa, Fairmesa Oil Co.'s No. 1 Gray and Moss & Walker's No. 1 Schuldt. The Allied's new producer was bottomed at 2,080 feet and finished with a 4¾-inch liner carrying 60 feet of perforated. It was brought in under a natural gas flow doing 199 bbls. of clean 17.5 gravity oil per day. The Fairmesa Oil Co.'s No. 1 Gray, finished at 2,035 feet with a 4¾-inch liner, including 61 feet of perforated, showed an initial daily production of 448 bbls. of clean 17.8 gravity oil on the beam. Moss & Walker's No. 1 Schuldt was also a pumper as it failed to show sufficient pressure to result in a natural flow. This new well was bottomed at 2,096 feet and was brought in pumping 254 bbls. of clean 17.5 gravity oil per day after the hole had been finished

IMPORTANT NORTHERN CALIFORNIA WILDCATS

Company, well, location—	S.	T.	R.	Depth	Status—
General Pet. Co., No. 11 Capitan, Santa Barbara Co. ..	32-	5-	30	2,396	cmtd.
Shell Oil Co., No. 3 Capitan, Santa Barbara Co.	32-	5-	30	1,779	will deepen
Royalty Ser. Corp., No. 1 Los Alamos, Santa Barbara Co.	35-	9-	32	3,512	hd. sh. drlg.
Union Oil Co., No. 2 Santa Maria, Santa Barbara Co. ..	24-	10-	34	2,389	pump 50 b.d.
Union Oil Co., No. 3 Santa Maria, Santa Barbara Co. ..	35-	10-	34	....	location
Signal O. & G. Co., No. 1 Elwood, Santa Barbara Co. ..	tideland			3,570	hd. sh. drlg.
Barnsdall-Rio Grande, No. 8 Doty Elwood, Santa Barbara	15-	4-	29	5,732	redrlg. 1,266
East Elwood Pet. Co., No. 1 Elwood, Santa Barbara Co.	14-	4-	29	3,656	suspended
Shell Oil Co., No. 1 Goleta, Santa Barbara Co.	20-	4-	28	4,325	gr. sd. drlg
Standard Oil Co., No. 2 Goleta, Santa Barbara Co.	17-	4-	28	4,850	redrlg. 3,400
Ortega Oil Co., No. 1 Summerland, Santa Barbara Co. ..	16-	4-	26	4,049	rd. sh. drlg.
Woodrow Pet., No. 1 Rincon, Ventura Co.	4-	3-	24	7,612	suspended
Continental, No. 3 San Miguelito, Ventura Co.	23-	3-	24	7,015	fishing d.p.
Las Posas Pet., No. 1 Las Posas, Ventura Co.	22-	3-	20	7,370	fishing
Fisher, Daniel, No. 1 South Mountain, Ventura Co.	5-	3-	19	364	sd. drlg.
Texas Co., No. 128 South Mountain, Ventura Co.	4-	3-	19	4,220	rd. sh. drlg.
Oil Ridge Oil Co., No. 1 Fillmore, Ventura Co.	1-	4-	19	1,380	br. sh. drlg.
Boisa Chica Oil Co., No. 2 Piru, Ventura Co.	4-	4-	18	508	sd. sh. drlg.
Piru Oil Co., No. 1 Piru, Ventura Co.	14-	4-	18	1,631	hd. sh. drlg.
American Drlg. Co., No. 1 Simi, Ventura Co.	6-	2-	17	903	pump wtr.
Dawson Oil Co., No. 1 Simi, Ventura Co.	5-	2-	17	1,549	suspended
Rancho Oil, Inc., No. 1 Ojai, Ventura Co.	18-	4-	23	2,220	hd. sd. drlg.
Continental Oil Co., No. 1 Ojai, Ventura Co.	12-	4-	23	rig	rigging up
Prop. Service Corp., No. 1 Lloyd, Ventura Co.	24-	3-	23	6,928	recmtd.
Kirk, W. A., No. 1 Sulphur Mountain, Ventura Co.	21-	4-	22	2,370	pump 20 b.d.
Mosher, J. W., No. 1 Santa Paula, Ventura Co.	22-	4-	21	2,300	reaming
Standard Oil Co., No. 1 McKittrick, Kern Co.	15-	30-	22	5,015	dry hole, abd.
Casa Mira Oil Co., No. 1 Belridge, Kern Co.	29-	28-	20	6,298	hd. sh. drlg.
General Pet., No. 1 South Belridge, Kern Co.	30-	28-	21	11,377	suspended
Union Oil Co., No. 18 North Belridge, Kern Co.	36-	27-	20	8,523	fishing d.p.
Standard Oil Co., No. 1-A North Belridge, Kern Co. ...	36-	27-	20	3,004	sd. sh. drlg.
Amerada Pet., No. 1 Blackwells Corner, Kern Co.	17-	26-	19	2,723	prod. test
Home Corp., No. 1 McFarland, Kern Co.	16-	26-	27	2,102	suspended
Ohio Oil Co., No. 1 McVan, Kern Co.	22-	27-	27	1,364	recmtd.
Pell Oil Co., No. 1 McVan, Kern Co.	14-	27-	27	200	sd. sh. drlg.
Buckeye Union Oil Co., No. 1 McVan, Kern Co.	11-	27-	27	rig	rigged up
Hancock Oil Co., No. 1 Mountain View, Kern Co.	14-	30-	28	3,270	sd. sh. drlg.
Associated Oil Co., No. 1 Mountain View, Kern Co.	3-	31-	29	1,116	sd. sh. drlg.
Associated Oil Co., No. 2 Mountain View, Kern Co.	14-	30-	28	172	sd. drlg.
Union Oil Co., No. 3 Mountain View, Kern Co.	23-	30-	28	4,071	sd. sh. drlg.
Union Oil Co., No. 4 Mountain View, Kern Co.	15-	30-	28	1,561	sd. sh. drlg.
Texas Co., No. 3 Mountain View, Kern Co.	14-	30-	28	4,542	sd. sh. drlg.
Barnsdall, No. 3 Mountain View, Kern Co.	31-	30-	29	2,672	sd. sh. drlg.
Hogan Pet., No. 5 Mountain View, Kern Co.	32-	30-	29	6,287	800 b.d.
Hoyt, Otis, No. 2 Mountain View, Kern Co.	19-	30-	29	....	grade
Standard Oil Co., No. 3 Mountain View, Kern Co.	23-	30-	28	5,449	recmtd. 5,408
National Oil Co., No. 1 Mountain View, Kern Co.	30-	30-	29	5,604	suspended
Gilmore-Snyder Oil Co., No. 2 Mountain View, Kern Co.	24-	30-	28	rig	rigging up
Gilco, Inc., No. 2 Edison, Kern Co.	23-	30-	29	2,020	sd. sh. drlg.
Jergins Trust, No. 2 Edison, Kern Co.	14-	30-	29	2,704	plug 1,560
Jergins Trust, No. 3 Edison, Kern Co.	14-	30-	29	rig	suspended
Jergins Trust, No. 4 Edison, Kern Co.	24-	30-	29	rig	rigging up
Shell Oil Co., No. 1 Edison, Kern Co.	16-	30-	29	4,276	plug 2,460
Monterey Expl. Co., No. 7 Edison, Kern Co.	15-	30-	29	....	location
Centralia Oil Co., No. 2 Edison, Kern Co.	26-	30-	29	mtl.	bldg. rig
North American, No. 1 Edison, Kern Co.	14-	30-	29	mtl.	bldg. rig.
General Pet., No. 1 Edison, Kern Co.	14-	30-	29	914	sd. sh. drlg.
General Pet., No. 2 Edison, Kern Co.	15-	30-	29	rig	suspended
Lee Oil Co., No. 1 Edison, Kern Co.	6-	30-	29	3,350	oil sd. drlg.
Tejon Ridge Oil Co., No. 1 Comanche, Kern Co.	23-	32-	29	1,250	suspended
Standard Oil Co., No. 1 Semi-Tropic, Kern Co.	8-	27-	23	mtl.	bldg. rig
101 Oil Co., No. 1 Elk Hills, Kern Co.	5-	30-	24	rig	rigged up
Texas Co., No. 1 Temblor, Kern Co.	29-	29-	21	....	location
Badger Oil Co., No. 1 Wheeler Ridge, Kern Co.	31-	11-	19	6,258	form. tester
Russ Oil Synd., No. 1 Kingsburg, Fresno Co.	28-	12-	11	4,438	suspended
Bergman, Harry, No. 1 Kingsburg, Fresno Co.	12-	12-	11	6,138	suspended
Union Oil Co., No. 1 Lillis-Kettleman, Fresno Co.	24-	21-	16	10,944	redrlg.
K. N. D. A., No. 56 Kettleman, Kings Co.	8-	22-	18	10,154	ream. 9,342
Texas Co., No. 1 Coalinga, Fresno Co.	35-	20-	14	....	material
Western Gulf, No. 2 S. P., Fresno Co.	11-	17-	15	6,575	hd. sd. drlg.
Farrel Pet., well No. 1, San Luis Obispo Co.	18-	31-	12	1,256	hd. sh. drlg.
Commonwealth Consd. Gas Co., No. 1 Tulare Lake, Kings	21-	22-	20	2,490	gas—shut in
Commonwealth Consd. Gas Co., No. 3 Tulare Lake, Kings	21-	22-	20	rig	rigging up
Kettleman Pac. Oil Co., No. 1 Tulare Lake, Kings Co. ..	11-	23-	16	812	sd. sh. drlg.
Trico O. & G. Co., No. 1 Alpaugh, Kings Co.	33-	24-	22	3,712	suspended
Trico O. & G. Co., No. 2 Alpaugh, Kings Co.	3-	25-	23	2,480	cmtd. 2,422
Buttes Oilfields Co., No. 2 Marysville, Sutter Co.	35-	16-	1	5,615	hd. sh. drlg.
Milham Exploration Co., No. 3 Tracy, San Joaquin Co. .	24-	3-	4	1,775	sd. sh. drlg.
Pure Oil Co., No. 1 Chowchilla, Madera Co.	7-	10-	14	3,860	sd. sh. drlg.
Northern Counties Pet., No. 1 Tehama, Tehama Co.	25-	24-	3	1,812	hd. sh. drlg.
Texas Co., No. 1 Petrolia, Humboldt Co.	1-	3-	2	....	location

IMPORTANT SOUTHERN CALIFORNIA WILDCATS

Company, well, location—	S.	T.	R.	Depth	Status—
Clayton, G. L., No. 1 Cerritos, Los Angeles Co.	31-	3-	12	6,698	fishing D. P.
Kelly & Son, No. 1 Torrance, Los Angeles Co.	7-	4-	13	6,433	redrlg. 5,804
Houser, G. W., No. 1 Athens, Los Angeles Co.	18-	3-	14	4,037	cleaning out
Wilshire Oil Co., No. 2 Potrero Deep, Los Angeles Co. ..	27-	2-	14	7,985	fishing D. P.
Fouri, C. W., No. 1 Del Rey, Los Angeles Co.	27-	2-	15	6,350	sd. sh. drlg.
Big Ben Oil Co., No. 1 Del Rey, Los Angeles Co.	27-	2-	15	....	material
Staple Oil Co., No. 1 Manhattan, Los Angeles Co.	24-	3-	15	4,660	br. sh. drlg.
Standard Oil Co., No. 1 Montebello Deep, Los Angeles Co.	6-	2-	11	8,042	gr. sd. drlg.
St. Helens, No. 1 Montebello Deep, Los Angeles Co.	6-	2-	11	7,038	100 b. d.
Shively, N. O., No. 1 Puente Hills, Los Angeles Co.	23-	2-	10	rig	rigging up
Deep Rock Oil Co., No. 1 Puente Hills, Los Angeles Co. ..	23-	2-	10	2,540	cleaning out
Pressel & Tull, No. 1 Puente Hills, Los Angeles Co.	30-	2-	9	3,741	suspended
Barstow Oil Co., No. 2 Saugus, Los Angeles Co.	35-	5-	16	2,400	suspended
International Dev. Co., No. 1 Saugus, Los Angeles Co. ..	34-	5-	16	3,358	fishing
Black Eagle Oil Co., No. 1 Huntington, Orange Co.	tideland			4,021	suspended
Explorers Drilling Co., No. 1 Fairview, Orange Co.	9-	6-	10	945	suspended
Nuoil Co., No. 1 Newport, Orange Co.	29-	6-	10	6,485	fishing D. P.
B. & B. Oil Co., No. 1 Newport, Orange Co.	19-	6-	10	rig	rigged up
Platt & Collins, No. 1 Costa Mesa, Orange Co.	14-	6-	10	2,566	suspended
Mid-Rich Drlg. Co., No. 1 Atwood, Orange Co.	26-	3-	9	4,019	suspended
Bridger, J., No. 1 Coyote, Orange Co.	15-	3-	10	5,410	suspended
Great American Pet. Co., No. 2 East Coyote, Orange Co. .	19-	3-	9	1,040	sd. sh. drlg.
Great American Pet. Co., No. 1 Chino, San Bernardino Co.	18-	2-	8	2,462	suspended
Great American Pet. Co., No. 2 Chino, San Bernardino Co.	18-	2-	8	3,152	suspended
Great American Pet. Co., No. 3 Chino, San Bernardino Co.	7-	2-	8	200	suspended
Tehama Pet., No. 1 Santa Ana Canyon, San Bernardino Co.	33-	2-	8	2,720	plug 2,680
San Diego Pet. Co., No. 1 Chula Vista, San Diego Co.	32-	18-	2	5,700	hd. sd. drlg.
Edmonds, E. A., No. 1 Trustee, San Diego Co.	29-	15-	3	2,042	sd. sh. drlg.
Everts Drlg. Co., No. 1 Camp Kearney, San Diego Co.	23-	15-	3	600	sd. sh. drlg.
Great Coastal Oil Co., No. 1 Elsinore, Riverside Co.	36-	5-	5	100	sd. drlg.

with a 4¾-inch liner carrying 48 feet of perforated. Several new wells were spudded in the Santa Barbara Mesa Field this week and a number of others are scheduled to begin making hole within the next few days. Potential completions for next week include Fornachon & Wilson's well No. 1 and Jordan & Mainey's No. 1 Nye, both of which are in the pay at present.

The Property Service Corp. failed to effect a satisfactory water shutoff in its No. 1 Dabney-Lloyd in the Ventura Avenue Field and the hole has been recemented at 6,856 feet. This well, an outpost located in the extreme eastern end of the field, has shown up exceptionally good and the outlook is rather favorable for production. The Associated Oil Co. has not yet recovered from the mechanical trouble which developed in its deep well a few days ago but good progress has been made and this project should be finished in the 57 zone in the near future. In the meantime, the company may successfully complete No. 134 Lloyd in the deep zone as it is rotating ahead in the pay at 8,500 feet. The Shell's No. 35 Gosnell is another projected deep zone completion that should be completed shortly.

Lost Hills-Belridge

Union Oil Co. is still held up with mechanical trouble in its No. 18 Belridge, a deep test in the North Belridge Field of Kern County and it looks like it will be another several weeks before this hole can be made ready for a production test. This well was being reamed preparatory to being placed on production at 8,523 feet when a twist-off left several hundred feet of drill pipe and a reamer in the bottom of the hole. The most unfortunate part of the occurrence is the fact that the well showed evidences of proving to be the largest potential producer finished in the state in several years. The company has about 1,000 feet of Eocene rocks opened up and was ready to give the well the gun when mechanical trouble developed. It has now been several weeks since this difficulty developed and as each week goes by the chance of recovering grows less and less.

Associated Oil Co. has temporarily suspended drilling operations on No. 5 Result in the North Dome but with the hole in good shape drilling can be resumed at any time. The Belridge Oil Co. topped the pay in its No. 16-35 in the North Belridge Field at 8,405 feet and this well will be finished in the wagon wheel zone some time within the next 30 days. Standard Oil Co. has abandoned its No. 45 in Section 15-30-22 in the McKittrick Field of Kern County as a duster at 5,015 feet. This well showed evidences of resulting in commercial gas production higher up in the hole but did not show a thing after drilling operations had been resumed. The next week should see the completion of one and possibly two new wells in the Mount Poso Field of Kern County and in conformity with the policy of operators we may anticipate the starting of a like number. The Texas Co. has surprised the boys by moving up into Humboldt County for its next wildcat and preparations are being made to begin the drilling of a new test near Petrolia in Section 1-3-2. This looks like a rather long shot based on past experience but then geology will prove of value unless additional data is made available as a result of additional drilling. After all it is not the conventional type of exploration that changes present concepts of geology but rather the drilling of wildcats in areas that show little promise. Every once in a while some rank wildcat opens up a new field and puts the geologists and petroleum engineers on the spot explaining just what happened.

Dominguez

The Shell added a new well to its list of producers in the Dominguez Field of Los Angeles Basin during the early part of the current week when No. 56 Reyes was brought in flowing 747 bbls. of clean 28.1 gravity oil per day. This new well, bottomed at 5,871 feet but plugged back to 5,262 feet and finished with 4,581 feet of 2½-inch tubing, is producing 690,000 feet of gas along with the oil. The Shell has also completed No. 59 Reyes in this field but no estimate is available as to what it should do as it is still flowing into the sump. Shell is starting two new wells in this field and Union should begin making hole in another shortly. The General Petroleum has spudded in another new well in the Brea Olinda Field of Los Angeles Basin where it recently completed a good well. This company has apparently decided to capitalize on the Union's storage and repressuring program which was undertaken several years ago. It is interesting to note that all companies have shown substantial production as a result of the Union's repressuring program upon resumption of production following a suspension of several years. This is another of the many inequities resulting from promiscuous allocation of production. The Union repressured this field as a conservation measure but now finds itself unable to produce to the maximum to prevent drainage due to the establishment of field quotas by the Central Curtailment Committee. In other words the Union is being penalized for undertaking conservation measures which included the introduction of natural gas into the oil zones and subsequent complete shutdown in the interests of curtailment. As a result of this situation, the Union has been obliged to resume production despite the fact that it would like to effect a complete shutdown until conditions improve.

The Pacific Western Oil Co. has completed the customary five-day flow test on its No. 16 Cone, a recent completion in the Inglewood Field of Los Angeles Basin and this well showed a potential of 2,047 bbls. of very clean 27.1 gravity oil. This well, bottomed at 3,456 feet and finished with a 6⅝-inch liner including 400 feet of perforated, was reconditioned before making the test this week. In addition to the 6⅝-inch liner the well has a 5-inch liner with perforations at 2,916-3,298 feet and at 3,335-3,456 feet. The St. Helens Petroleum Co. has put its No. 6 P. & B. in the Montebello Field on a pumping test upon completion at 7,038 feet and this new well is pumping 141 bbls. of 37.0 gravity oil cutting about 25 per cent water. This just about winds up deep zone development in the Montebello Field although the Fullerton Oil Co. has yet to finish its No. 29 McGinley and the Standard Oil Co. to determine the future status of No. 75 Baldwin, rotating in a gray sand at 8,100 feet.

Central Ohio and Kentucky Fields Lead in Developments in Central West

By GEORGE A. WHITNEY
Staff Correspondent, Central West Fields

FINDLAY, Ohio, Oct. 29.—Central Ohio and Kentucky were the outstanding fields of the Central West during the week, especially Kentucky, where 16 wells were reported, of which 15 were oil wells with an initial of 955 bbls. and one dry hole.

In the Lima Field, Hoffman and others' No. 1 Anna C. Sharf farm, Section 18, Pleasants Township, Hardin County, produced an initial of 12 bbls. at a depth of 1,370 feet. Kenova Oil Co. made a location for No. 1 on the G. Schinderwolf farm, Section 25, Cessna Township. In Seneca County, Tiffin Industrial Gas Co.'s No. 2 Frank Sherger farm, Section 32, Liberty Township, is a gas well. In Clinton Township, A. L. Johnson & Co.'s No. 3, on the Caroline C. Shaw farm, Section 29, Clinton Township, same county, was abandoned. In Van Wert County, H. C. Miller is drilling No. 4 James P. Davis farm, Section 5, Jennings Township. Jackson Oil Co. is drilling No. 1 William F. Pangle farm, Section 29, and Elmer Caudill is drilling No. 1 Mary B. Sheets farm, Section 30, same township.

In Sandusky County, Perpetual Rights Corp. is drilling No. 2 Peter Bowe farm, Section 18, Scott Township. Montgomery and others' No. 2 N. T. Hetrick farm, Section 17, Rice Township, has a fishing job at 2,530 feet. William H. Barlekamp has abandoned Nos. 3 and 4 Noah Smith farm, Section 30, Jackson Township.

In Ottawa County, Henry G. Gladieux abandoned No. 1 Ferdinand Fischer farm, Section 31, Benton Township.

In Wyandot County, Reese and others are drilling No. 1 Nellie Ritter farm, Section 29, Tymochtee Township. New Oil Co. is shut down at 200 feet on the Minor Koehler farm, Section 20, Crane Township.

Brown and others are drilling below 50 feet in No. 3 on the Edward Orton farm, Section 22, Pitt Township.

Jones & Coyle are rigging up on the William Good farm, Section 17, Washington Township, Hancock County.

CENTRAL OHIO

In the Central Ohio Field, there were 19 completions, with 1 oil well good for 6 bbls., 7 dry holes and 11 gas wells.

In Ashland County, Kenova Oil & Gas Co.'s No. 1 Floyd Eagle farm, Section 9, was reported dry. In Lake Township, Gold Crown Oil & Gas Co. is drilling No. 5 George Horn farm, Section 21, Lake Township. Ohio Fuel Gas Co. is drilling No. 1-5,907 C. M. Wise farm, Section 5, Perry Township, and has a rig for No. 1-5,930 John Mutchler farm, Section 3, Hanover Township.

In Medina County, Ohio Fuel Gas Co. is drilling No. 1-5,916 Carrie A. Bell farm, Section 25, Guilford Township, No. 1-5,935 John H. Lance farm, Lot 3, Lafayette Township, and No. 1-5,872 John Grabis farm, Lot 18, same township. Same company has a rig for No. 1 Leo A. Hauck farm, Lot 50, Medina Township.

In Lorain County, Ohio Fuel Gas Co. has a rig for No. 1-5,903 on the Edwin Robson farm, Lot 15, Carlisle Township.

In Holmes County the Ohio Fuel Gas Co.'s No. 2-5,882 on the George W. Brown farm, Section 11, Richland Township, is a gas well at a total depth of 3,188 feet. It has a gas well in No. 1-5,855 Morgan A. Quick farm, Section 28, Washington Township, at 2,817 feet. It made a location for No. 1-5,923 Maggie Allison farm, Section 21, Monroe Township, and is drilling No. 1-5,927 Clarence Conner farm, Section 32 Ripley Township, and No. 1-5,883 on the Emanual Weaver farm, Section 6, Berlin Township. Ludic Oil & Gas Co. is drilling No. 2 Ada Sprang farm, Section 12, Monroe Township.

In Richland County, Ohio Fuel Gas Co. has a rig for No. 1-5,906 W. T. Ramsey farm, Section 17, and a rig for No. 1-5,929 on the L. C. Benedict farm, Section 16.

In Wayne County, Robinson & Arn's No. 4 H. G. Mellinger farm, Section 12, Plain Township, is dry.

In Summitt County, East Ohio Gas Co. is drilling No. 4 Everette Bexler farm, Section 17, Green Township.

In Fairfield County, City Natural Gas Works' No. 3 Charles Fauble farm, Section 34, Berne Township, is a gas well at 2,157 feet. Same company is drilling No. 1 John A. Friedley farm, Section 1, Greenfield Township.

In Rome Township it has a rig for No. 2 on the M. E. Bowman and others farm, Section 34.

In Knox County, H. E. Jerkins' No. 1 on the Sol B. Rice farm, Lot 20, Butler Township, is a gas well at 3,163 feet. Lacknett and others are drilling No. 1 on the Marvin Purdy farm, Section 18, Harrison Township.

In Coshocton County Mehowa Oil & Gas Co.'s No. 2 on the Soloman Haun heirs farm, Lot 8, Clark Township, was dry at 3,645 feet. Johnson and Byers are drilling No. 1 Jacob Bechtel farm, Section 3, Mill Creek Township. Millersburg Oil & Gas Co.'s No. 2 Gotlieb Reuss farm, is a gas well at 896 feet.

In Licking County, Preston Oil Co. has a location for No. 3 on the Frank Beckford farm, Section 18, Fallsburg Township.

In Muskingum County, W. A. Crowley's No. 1 on the William and Catherine Wentz farm, Section 17, Brush Creek Township, is a gas well at 1,362 feet. Fritz Oil & Gas Co.'s No. 1 W. F. Swingle farm, Section 28, is drilling.

In Athens County, Ohio Fuel Gas Co.'s No. 1-5,922 on the Black Diamond Coal Co.'s land, Section 23, Berne Township, is drilling. Same company's No. 1 A. H. Grim farm, in Fractional Section 25, Lodi Township, is drilling.

In Stark County, Ohio Fuel Gas Co.'s No. 2-5,846 on the Howard Hoverland farm, Section 10, Jackson Township, is a gas well at 4,345 feet. Cunningham Natural Gas Co.'s No. 2 Levi A. Stoner farm, Section 20, Plain Township, is dry at 4,547 feet.

In Guernsey County, Jewell and Hammond's No. 1 on the J. M. Dillon farm, Section 32, Millwood Township, is dry. Ferguson & McCullogh's No. 2 on the Herbert Watson farm, Section 2, Willis Township, is drilling. H. P. Muhlback and others' No. 6 Thomas Stewart farm, Section 21, same township, is drilling, and locations have been made for No. 8, same farm, same section, and No. 7 on the Stewart farm.

In Gallia County, Bowers and others' No. 1 Isaiah Coghenour farm, is dry at 362 feet.

In Vinton County, Wittmer Oil & Gas Co.'s No. 1 on the Vernon S. Finney farm, Section 4, Swan Township, is dry. In Lawrence County, Frick and others are drilling No. 1 William Murdock farm, Section 33, Rome Township, and C. C. Wolfe has a rig on the Edward Miller farm, Section 28, same Township.

In Meigs County, McCurdy, Berg and others' No. 1 on the Effie M. Haley farm, Section 8, Rutland Township, is a gas well at 828 feet, and Meigs Development Co.'s No. 1 Malinda Luckadoo farm, Section 8, is a gas well at 827 feet.

INDIANA

A well drilled by Pierce Loyd & Thayer on the Burton H. Yaiter farm, SE Section 15, Busseron Township, Knox County, produced an initial of 100 bbls. at a total depth of 809 feet, and should bring about further development. In Vanderburg County, John L. Drake is drilling on the John McCutcheon farm, SE SE Section 36, Scott Township. P. E. Tichenour is drilling on the Emma Howard farm, in Center Township, same county.

Nelson Zumbaugh is drilling on the Thomas Watkins farm, SE NE Section 22, Colfax Township, Newton County.

In Washington County, Charles E. Wyman is drilling on the Offa Chastain farm, NE SE Section 12, Vernon Township.

In Posey County, B. F. Wireback is drilling on the C. C. Winternheimer farm, Section 22, Robison Township.

In Pike County, Wabash Public Service abandoned Nos. 2 and 4 on the J. N. Davidson farm, Section 5, Clay Township. C. C. Taliaferro, Jr., abandoned No. 2 on the Talliaferro farm, in Washington Township.

In Daviess County, C. H. Parriott and others are drilling No. 1 on the Baker-Wallace farm, Section 21, Veale Township.

In Perry County, Christ Zoercher is drilling on the Mary Van Winkle farm, Section 36, Clark Township.

ILLINOIS

No completions were reported from the Illinois Field, but a number of abandoned wells were reported. In Sugar Loaf Township, St. Clair County, Gor-

(Continued on Page 61)

Burrton Pool Has Best Completion of the Week in Kansas Fields; Small Crop of New Wells

By JAMES McINTYRE

Olson Oil Co., of Tulsa, completed a well in the Burrton Pool, SW SW Section 26-23-4, Kansas, on October 28, that found the top of the pay at 3,569 feet and has a total depth of 3,588 feet. It made 150 bbls. per hour while drilling in.

This was the best of a rather small crop of completions in Kansas in the past week. Only six other oil wells were completed in the State and their combined initial production was 1,314 bbls. A number of dry holes and gas wells were finished and several near completions are listed in the report.

Estimated Production

Estimated daily average production of Kansas for the week ending October 27 and for the preceding week follows:

	Barrels	
	Oct. 27	Oct. 20
Hollow	5,695	5,950
Ritz-Canton	10,695	10,325
Voshell	5,390	6,200
Johnson	1,820	1,950
Sedgwick County	7,430	7,400
Nikkell	6,170	6,200
Ellsworth County	4,310	3,066
Barton County	1,315	1,216
Rice County	12,925	12,475
Reno County	8,175	7,458
Ellis County	440	582
Kingman County	1,290	1,715
Stafford County	1,160	1,162
Russell County	5,555	5,634
Greenwood County	11,500	11,500
Butler County	19,300	19,200
Other pools	18,585	18,617
Total	124,755	123,650

Cowley and Elk Counties

Wakefield's No. 1 Weigle, NW SE SE Section 6-32-6, Cowley County, was dry and abandoned at 3,103 feet. There was a small showing of oil at 2,958-3,065 feet.

Griffin & Bell completed a 450,000-foot gas well in No. 9 Oliver, 660 feet from west and 990 feet from south line of SE Section 1-32-10, Elk County.

Sedgwick County

Jones & Kirk and others' No. 1 McQuillen, NE NW NE Section 21-29-2w, Sedgwick County, had the Simpson series from 4,039 feet to the total depth of 4,101 feet and it was dry. The test was abandoned.

Magnolia Petroleum Co. had cellar dug for No. 10 Wheeler and others, SE SE NE Section 19-27-2.

Magnolia Petroleum Co.'s No. 3 H. Vickers, NW SW NW Section 20-27-2, was completed. It is a 47-bbl. well from chat at 2,955-58 feet.

Paul White, trustee completed No. 2-B Gorman, CSL NW NW SW Section 6-26-1e, which made a potential production of 178 bbls. from Kansas City lime at 2,555 feet, total depth 2,700 feet, which had been acidized.

Butler County

In Butler County, F. L. Kelly and others were drilling at 935 feet in No. 1-A Beech, SW NE SW Section 21-29-4. Flint Hills Oil & Gas Co.'s No. 8 Martin, C N half S half NE Section 27-28-4, was shot with 40 quarts at 1,453-96 feet and made a 300,000-foot gas showing. It was not completed.

Sheldon and others have a machine in for No. 1 Hustan, NW NW NE Section 12-25-3.

Kingman County

W. C. McBride and others abandoned No. 1 Woolderidge, NW NW NE Section 16-27-7w, Kingman County, in Siliceous lime at 4,300-37 feet, total depth. It had no showing of oil.

Greenwood and Woodson Counties

Abell & Rhodes' No. 5 Blackwell, 1,030 feet from the east and 650 feet from south line of NE Section 16-24-13, Greenwood County, is a 5-bbl. completion in Mississippi lime at 1,656-1,700 feet.

Elbar Corp. had machine in for No. 2 Figge, SE NE SW Section 27-23-14, Woodson County. Nye & Kilby shot their No. 4 Shaffer, SE NE SW Section 31-23-14, and oil rose in the hole 700 feet.

Reno County

Hartman, Blair and others made a location for No. 1 Carmichael, C SW SW Section 10-24-4w, Reno County.

Shell Petroleum Corp.'s No. 1 Ratzlaff, SE SW SE Section 2-23-4w, was not yet completed. It was given a pumping test for 12 hours and produced 471 bbls. of oil and 411 bbls. of water from Hunton lime at 3,607-09 feet.

Skelly Oil Co.'s No. 1 Sabin, NE NE SW Section 11-23-4w, was also given a production test, but was not completed. It pumped 474 bbls. of oil and 14 bbls. of water in 24 hours, and was then treated with 500 gallons of acid. It produced from Hunton lime at 3,565-3,609 feet.

Olson Drilling Co. and Shell Petroleum Corp. have cellar dug for No. 1 England, C SW SE Section 34-23-4w.

Sinclair Prairie Oil Co. made a location for No. 1 Stalcup, C SE NW Section 36-23-4w.

Olson Drilling Co. and Shell Petroleum Corp.'s No. 1 Marr, C NE SW Section 36-23-4w, has been temporarily abandoned. It swabbed 46 bbls. of oil and 165 bbls. of water from chat at 3,283-3,397 feet.

Harvey County

Shell Petroleum Corp. had material moved in for No. 6 Voth, 1,309 feet south and 1,327 feet east of NW cor. Section 4-22-3w, in the Hollow Pool, Harvey County. Marathon Oil Co. made a location for No. 4 Klassen, NE SE NW Section 30-22-3w.

McPherson County

Argo Oil Co. and Shell Petroleum Corp. were deepening No. 3 Neufeldt-B, SE SW SE Section 16-21-3w, McPherson County, from 3,077 feet and were drilling at 3,190 feet, having passed through the lime at 3,160 feet.

Shell Petroleum Corp.'s No. 5 Koehn, SE NW NE Section 16-21-3w, found Wilcox sand at 3,386 feet and drilled to 3,407 feet. It was shot with 15 quarts but produced 17 bbls. in three hours on the swab.

Continental Oil Co.'s No. 1 Goering, SE SE SW Section 29-21-1w, had Hunton lime at 3,279-3,300 feet. It swabbed 45 bbls. of oil in one hour and was then acidized.

Bailey and others have rig up for No. 1 Nelson, C NE SW Section 1-19-3w. Roth & Faurot have rig up for No. 3 Almen, NW NW SE Section 13-19-3w.

Shell Petroleum Corpp.'s No. 5 Decker, SW SW SE Section 11-19-2w, was completed. It produced 534 bbls. in 24 hours in a potential test. Viola lime was found at 3,360-73 feet, total depth.

Shell Petroleum Corp.'s No. 4 Griffin-B, NW NW NE Section 14-19-2w, pumped 508 bbls. of oil and 105 bbls. of water in 16 hours from Viola lime at 3,355-71 feet, total depth.

Deiter and others abandoned the location for No. 1 Thomas, SE NE SW Section 26-19-2w.

Boyle & Grossman completed No. 4 Smith, NW SE NW Section 29-19-1w, in Viola lime at 3,417-29 feet. It pumped 450 bbls. of oil and 239 bbls. of water in a 24-hour potential test.

Barton County

Gypsy Oil Co., Atlantic Oil Producing Co. and Shell Petroleum Corp.'s No. 1 Batchman, C SW NE Section 18-20-12w, Barton County, a wildcat, was dry and abandoned at 3,518 feet. It had Siliceous lime at 3,496-98 feet.

Rice County

National Refining Co. completed No. 2 Reese, SE SW SW Section 16-19-9w, a 7,000,000-foot gas well from 1,991-2,005 feet. It had been drilled to 3,315 feet where the hole was filled with water, and then was plugged back to 2,050 feet.

Strong City Gas Co. completed No. 1 Urschel, NW cor. Section 30-18-8, Chase County. It is a 500,000-foot gasser at a total depth of 408 feet.

Home Gas Co. completed No. 1 Kennedy, C NW SE Section 17-16-7, Morris County, a 500,000-foot gasser at 650 feet.

Spangler and others were drilling at 160 feet in No. 1 Reed, NW NE NW Section 23-16-7.

Russell County

In Russell County, Stanolind Oil & Gas Co. and Gypsy Oil Co.'s No. 1 Johansen, NE NE SE Section 21-16-10w, in a potential test made 563 bbls. of oil in 24 hours from Siliceous lime at 3,318-22 feet, which had been acidized.

Keys Petroleum Co. abandoned the location for No. 13 Mills, SW SW SE Section 4-14-15w, after spudding in.

J. J. Hall and others' No. 1 Miller, NW NE NE Section 31-14-13w, produced 71 bbls. in a potential test. It had been deepened from 2,975 to 3,154 feet and acidized.

Darby Petroleum Co. was building rig for No. 1 Jarus, NW SW NE Section 16-16-12w. Empire Oil & Refining Co. made a location for No. 3 Krug, NE NW NW Section 24-15-14w. Aylward and others have rig up for No. 2 Holland, a twin, NE cor. Section 28-13-14w. The Texas Co. made a location for No. 5 Jacobs, NE NW SW Section 31-12-15w.

H. H. Blair's No. 1 Fink, SW NW SE Section 16-14-14w, pumped 298 bbls. in 24 hours and was then acidized. It produced from Oswald lime at 3,095-3,154 feet.

Wildcat Operations in Kansas

Week Ending October 27

(Descriptions are East unless marked otherwise)

BARBER COUNTY

Lario O. & G. Co.'s No. 1 Whelan, C NW Sec. 32-31-11w.
Chat 4,355-4,435 ft.; P.B. to 4,380 ft.; pumped 25 bbls. fluid per hr.; 10 to 20% wtr.

BARTON COUNTY

Gypsy Oil Co. and Atlantic Prod. Co. and Shell Pet. Corp.'s No. 1 Batchman, C SW NE Sec. 18-20-12w.
Siliceous lime 3,433 ft.; T.D. 3,518 ft.; wtr.; abd.

Murphin and Downing's No. 1 Lanterman, NW SE Sec. 15-19-11w.
Drlg. 1,340 ft.

C. L. Price et al's No. 1 Ehrlich, NW SE Sec. 10-16-13w.
T.D. 360 ft.; fishing.

Treleaven & Brimm et al's No. 1 Haas, SW cor. Sec. 30-18-15w.
Rigging up.

Walter Shearen et al's No. 1 Kempler, SE NE NE Sec. 31-18-11w.
S.D. 300 ft.

BUTLER COUNTY

Gaines et al's No. 1-A McKinley, NE SE Sec. 19-29-4.
K. C. lime at 1,890 ft.; T.D.; showing oil.

Bill Rex et al's No. 1 DeMoss, NE NW Sec. 8-28-7.
Sand 2,665-95 ft.; shot with 80 qts.; 2,-100 ft. of oil and 200 ft. of wtr.

F. H. Unruh et al's No. 1-A Joseph, SE SW NW Sec. 18-25-4e.
Rig.

CHASE COUNTY

Strong City Gas Co.'s No. 1 Urschel, NW cor. SE NW Sec. 30-18-8.
Comp.; 500,000 ft. gas, 408 ft.

CLAY COUNTY

Seidel Bros.' No. 1 Youkers, C S½ SE NW Sec. 21-9-4.
S.D. 1,300 ft.

Severs et al's No. 1 Meyers, NE NW NW Sec. 4-10-4.
Mississippi lime 1,775 ft.; T.D. 1,834 ft.

COWLEY COUNTY

National Refining Co.'s No. 1 Robinson, NE SE NE Section 11-34-4.
T.D. 3,105 ft.; chat 3,084-3,105 ft.; re-cmtd. 5-in. csg.; C.O.

Otstot et al's No. 1 Eckhardt, SE NW Sec. 15-35-6.
Spudded and S.D.

Wakefield et al's No. 1 Weigle, NW SE SE Sec. 6-32-6.
Sand 2,958-70 ft.; 3,065 ft. dry; abd. at 3,103 ft.

DICKINSON COUNTY

Dutch Oil Co.'s No. 1 Phillips, C NE NW Sec. 15-15-1e.
Set 8-in. csg. 2,500 ft.; S.D.

ELK COUNTY

Lassen's No. 1 Ferguson, SE SE SW Sec. 21-30-8.
Rigging up.

ELLSWORTH COUNTY

Ainsworth Bros.' No. 1 Charvat, NE NW NE Sec. 33-15-10w.
Drlg. 1,235 ft.

Lario Oil & Gas Co.'s No. 1 Harbalek, SW NW Sec. 7-16-10w.
Drlg. 2,135 ft.

GREENWOOD COUNTY

Greeley et al's No. 1 Satler, SW SE SW Sec. 28-25-12.
S.D. 335 ft.

HARVEY COUNTY

Imo O. & G. Co. et al's No. 1 Sperling, SE NE NE Sec. 23-22-2.
Set 15-in. pipe at 120 ft.; drlg. 285 ft.

Wenzel et al's No. 1 Schrag, NW SE Sec. 24-22-3w.
T.D. 587 ft.; S.D. for csg.

KINGMAN COUNTY

W. C. McBride, Inc.'s No. 1 Wolbridge, NW SE Sec. 16-27-7w.
Wilcox sand 4,191 ft.; Siliceous lime 4,-300-37 ft.; dry and abd.

McPHERSON COUNTY

C. W. Lamer et al's No. 1 Rolander, NE NE NW Sec. 8-18-2w.
Drlg. 1,135 ft.

Roth-Farout et al's No. 1 Bestwater, SE SW SE Sec. 23-20-1w.
Drlg. 1,100 ft.

MORRIS COUNTY

Home Gas Co.'s No. 1 Kennedy, C NW SE Sec. 7-16-7.
Sand 650 ft.; 500,000 ft. gas; comp.

OSAGE COUNTY

Jim Edwards' No. 1 Detrich, C NW SE Sec. 21-14-15.
Spudded and S.D.

OSBORNE COUNTY

Carmen & Hershey's No. 1 Fritz, C NE NE Sec. 9-10-14w.
Set 10-in. csg. 2,420 ft.; drlg. 2,770 ft.

RENO COUNTY

Foraker et al's No. 1 Hiett, SE SW NE Sec. 34-24-4w.
Drlg. 260 ft.

McBride et al's No. 1 Popp, SW SW NE Sec. 32-24-4w.
T.D. 3,277 ft.; fishing.

Privett Drlg. Co.'s No. 1 Crotts, NE NW NE Sec. 27-26-10w.
Drlg. 1,375 ft. in new hole.

RICE COUNTY

Foraker, Nickerson et al's No. 1 Lyon, SE NW Sec. 27-20-8w.
Drlg. 1,060 ft.

Marathon Oil Co.'s No. 1 Kline, SW SE Sec. 19-14-24w.
Set 10-in. 3,408 ft.; drlg. 3,755 ft.

Robberson et al's No. 1 Johnson, NW NW SW Sec. 22-19-8w.
Old well deepening; T.D. 3,591 ft.; tools stuck; abd.

Stark & Wells' No. 1 Smith, NW cor. Sec. 30-19-8w.
Location.

Twin Drlg. Co. et al's No. 1 Rolfs, SW NW SW Sec. 13-17-9w.
Drlg. 1,310 ft.

Langston et al's No. 1 Markle, NE SW Sec 1-20-9w.
8-in. 2,943 ft.; drlg. 3,050 ft.

Yingling et al's No. 1 Maupin, NW SW SW Sec. 1-18-8w.
Drlg. 2,740 ft.

(Continued on Page 61)

Improved Tone and Upward Price Trend Seen in Chicago's Gasoline Market

By SPECIAL CORRESPONDENT

CHICAGO, Oct. 29.—The improvement in tone and quoted prices has made further headway in the tank car gasoline market here in the last few days. Feeling is better and there is more active interest in gasoline from buyers. While jobbers are still mostly on the sidelines so far as spot buying is concerned, carlot marketers have been active purchasers recently, especially with the East Texas Field virtually nonexistent as a source of gasoline. In addition, jobbers are ordering out gasoline actively on their contracts, and refinery shipments are reported quite heavy. How much of this is regular, normal contract movement and how much is new purchases of jobbers from other jobbers by tank wagon because of the current abnormal tank wagon market structure cannot be determined, but at any rate the whole aspect of the oil market situation here appears better.

The fact that a general cut in crude prices has not taken place is lending encouragement to those who have persistently contended that the major companies would permit one more chance to right the petroleum market situation before cutting crude markets drastically.

Consumption Good

Gasoline consumption in the central territory seems to be confirming the more optimistic expectations made earlier about the prospective consumer demand. It may be somewhat spotty but it seems to be quite large in the aggregate. The call for high octane materials is especially brisk, and the market tone of any material falling in the class of such material is extremely strong. Meanwhile, the low octane price structure is again creeping up to the vicinity of 3 cents a gallon.

The tank wagon and service station price cuts in various parts of the territory now are seen as having a much more important effect on the general structure than before. In many cases refiners are being forced to act on the marginal protection clauses of their contracts. There is much general irregularity in retail prices. In Chicago, for instance, rebating and price cutting continue to be claimed by various classes of sellers against competing classes and while at this writing further price cuts have not been made and the structure does not seem so ragged as recently, still conditions here and elsewhere are far from being uniform and satisfactory.

Hope is expressed here that the rejuvenated program of the Federal Government in East Texas will result in a generally improved market condition.

Refiners have been giving thought to plans for changing their product specifications for winter and an early check would indicate already that some slight change in volatility has been made in gasoline currently sold, when compared with that of late summer. Lower temperatures have been reported in some of the northern regions.

Kerosene

Kerosene is a little steadier, perhaps as a result of the East Texas tightening which theoretically should affect other items than gasoline. Fall plowing is believed about at an end and demand is not very active.

Heating Oils

Heating oils, which have been soft and lagging, are beginning to show more activity and tone is better currently. Much material has been available from East Texas but this situation now seems to be changed. In the Chicago area, effective about November 1, indications are that the question of viscosity of No. 4 oil will be settled by general adherence to a minimum of 85 at 100 Universal, while No. 5 viscosity is settled around minimum of 200 and No. 6 at 600.

Fuel and Gas Oils

Heavy industrial oils are still slow, reflecting the slack condition in consuming industries, but low grade gas oil is now firmer, and ruling at fractionally higher prices, on limited supply.

Lubricants

Lubricating oils reflect little fundamental change. Some products, such as neutrals, continue rather tight and strong, bright stocks uncertain. Motor oil sales are reported fairly good.

Naphthas

Solvents and naphthas remain dull and marking time, with moderately good demand for various items, prices unchanged.

Wax

Wax shows no price change, but demand is not active and stocks are reported generally larger than they were some months ago when the market was attracting more buying and inquiry-attention.

Coke

Coke business is reported limited. Weather conditions have been mild and the demand seems to have been moderate. At the same time, tone of the market is good, suggesting this product is in good statistical position.

BIRMINGHAM RATES

BIRMINGHAM, Ala., Oct. 29.—A petition of the Birmingham Gas Co. to the Alabama Public Service Commission that gas rates in Birmingham be increased about 26 per cent has been met with a counter petition from the Birmingham city commission that rates be reduced 25 per cent. Hearings have been set for November 7.

The company is asking an advance in rates, declaring its income was not sufficient to meet expenses. The city commission objected, saying the general tendency is to reduce utility rates. The city attorney was requested to file application for a reduction and to fight the rate increase.

LONDON GAS PROPOSITION

LONDON, Ontario, Oct. 27.—Preliminary arrangements are being made for a vote by the electors on a proposal of the City Gas Co., subsidiary of the Union Gas Co. of Chatham, to pipe natural gas to London from the Dawn Field. The vote will be taken at the municipal elections in December.

The tentative agreement calls for a 10-year franchise. The company's rate proposal is: First 200 feet, 40 cents per 100; next 4,800 feet, 75 cents per 1,000; next 5,000 feet, 65 cents per 1,000; over 10,000 feet, 50 cents per 1,000; these rates being net with the gross 5 cents higher. The city is asking that net rates be changed to gross rates and the latter subject to 10 per cent prompt payment discount, with a lower rate for the first 2,000 feet per month.

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First Wildcat Strike in Gladwin County, Mich., Most Important Since the Porter Discovery

By PAUL A. ELLIOTT
Staff Correspondent, Michigan Fields

MUSKEGON, Mich., Oct. 29.—Michigan operators last week heralded the new wildcat strike in the M. E. Whitehill's No. 1 Omer Kintner, C S half NW NW Section 11-17n-2w, Beaverton Township, Gladwin County, as the most important new developments in Michigan since the discovery of the Porter Pool in Midland County in February, 1932. The new wildcat, which unexpectedly blew in from a depth of 3,970 feet just as it was about to be abandoned as a failure in the Dundee limestone formation, flowed three heads over the top of the derrick through a 5 5/16-inch casing before it was harnessed with a control head and turned into field tanks through a 2-inch line.

The Kintner proved to be a real "mystery" well with reports of its initial production varying from 40 to 100 bbls. a day. Even the formation from which it continued flowing by heads into two 500-bbl. and two 100-bbl. tanks rushed to the lease was undetermined after a week's speculation because of the depth, 300 to 400 feet below Dundee pay horizons in the nearest developed pools.

It is about 20 miles north of the Chippewa-Greendale Township Pool comprising the original Mount Pleastnt Field and 15 miles northeast of the Vernon Township Pool in Isabella County. Although preliminary tests of the crude indicate it to be similar to Dundee oil from proved pools in central Michigan, it is considered possible it may be flowing from a lower Dundee or upper Monroe pay stratum.

Located about a mile west of the village of Beaverton, the new well is about 15 miles off the general oil and gas trend extending in a northwest and southeasterly direction through virtually all of the major pools of Central Michigan. The Ogemaw County Pool, 50 miles north of the big Porter Pool, is the only producing area in this section of the State off the general trend.

First Test in Gladwin County

State records reveal the Kintner well to be the first test in Gladwin County, which adjoins Midland County on the north and is directly east of Clare County, where one gas pool has been located and many other tests drilled during the past four years.

The new wildcat is almost certain to result in a big testing program not only in Gladwin County but also to the northwest through Clare, Roscommon and other counties on the theory it may be the discovery well of another northwest-southeast trend lying generally parallel to the Porter, Yost-Jasper, Chippewa-Greendale, Leaton and Vernon Pool trend.

A leasing play started almost immediately after first reports of the Beaverton strike early last week and by the close of the week was well under way.

M. F. Whitehill, Sr., and his son, M. F. Whitehill, Jr., both of Washington, Pa., are reported to have about 16,000 acres under lease in Gladwin County, including about 4,000 acres in a block around the Kintner well.

Sun Oil Co., Shell Petroleum Corp. and East Ohio Refining Co., operating subsidiary of the Standard Oil Co. of New Jersey, also hold considerable acreage in the territory.

The narrow margin by which the Kintner became a producer instead of being plugged and abandoned was revealed in the report that plugging materials had been delivered to the lease and application for a permit to plug filed in the State Conservation Department office in Mount Pleasant several days before the first show of gas and oil was encountered at 3,969 feet. The well was drilled only 1 foot into the pay before it began to flow through the 5 5/16-inch casing. In accordance with the code approval of a plan for development of the new pool will be sought immediately from the oil administrator in Washington, D. C.

The new wildcat discovery far overshadowed all other developments in Michigan last week although about 2,500 bbls. of new oil production was added to the Porter Pool record by four wells drilled into the Dundee. Three other wells in Vernon Township, Isabella County; Day Township, Montcalm County, and West Branch Township, Ogemaw County, also had promising shows in the Dundee and upper Traverse pay sands. A small Monroe gasser also was developed in a former upper Traverse oil producer in Muskegon Township, Muskegon County, and an Oregon Township, Lapeer County, test was dry in the Berea.

Porter-Midland

Strange & Fortney's No. 8 J. W. Campbell, NW NE SW Section 18-13n-1w, Porter Township, Midland County, was the largest completion of the week. It flowed 110 bbls. in the first hour, topping the Dundee at 3,386 feet and striking pay sands from 3,407-10 feet for an estimated initial of 2,400 bbls. a day.

Gordon Oil Co.'s No. 5 Muscott and others, NW NW NE Section 17, Porter Township, topped the Dundee at 3,395 feet and made 90 bbls. in 21 hours at a total depth of 3,422 feet for an estimated initial of 100 bbls. a day. Two other Porter tests had a hole full of oil in the Dundee and were treated with acid. They were: Gordon Oil Co.'s No. 2 Finch Sisters, NW NE NW Section 28, and Pure Oil Co.'s No. 1 Herman Neitzke, NW NW NW, also Section 28, both in the southerly extension area in the big pool. Pure's No. 1 Neitzke was plugged back from 3,451 feet to 3,450 feet and treated, while the Gordon-Finch well topped the Dundee at 3,385 feet and drilled to 3,440 feet before stopping to treat.

Four other wells were nearing completion in the Dundee as follows: James P. McHugh, trustee's No. 1 Breckenridge State Bank, NW NW NW Section 29, drilling in; George G. Hanner's No. 2 Free Methodist Church, C SW NW Section 17, cased at 3,392 feet; Fred Stork's No. 4 W. C. Breu, SW NE SE Section 20, casing above the Dundee; and the Northern Oil & Gas Co.'s No. 4 Hattie M. Hodge, SW SW SW Section 18, drilling near the top of the Dundee.

Nine other Porter wells were drilling and nine new ones rigged, moving in or spudding as the week closed.

W. Hunter Atha's No. 1 Thomas Moran, C E half SE Section 28-13n-1e, Mount Haley Township, Midland County, which came in with an initial of 65 bbls. a day on a location 5 miles east of the Porter Township Pool, dropped to 10 bbls. a day on the pump and was testing. It is 3,480 feet deep. Other active Midland County projects included one drilling in Greendale Township, one drilling and one rigging in Jasper Township, and one rigging and one shut down in Mills Township.

Isabella County

A show of gas and oil was encountered in Mellon-Pollock Oil Co.'s No. 2 Icem C. Slentz, NW SW SW Section 23-16n-4w, Vernon Township, Isabella County. Dundee was topped at 3,717 feet and the show with water encountered at 3,758 feet. The well was testing on the pump. One other drilling well, one shut down and one new test rigging completed Vernon Township activity of the week.

Arbaugh Brothers' No. 1 Ray Aldrich, C NE SE Section 22-14n-6w, Broomfield Township, was fishing at 1,100 feet, where it ran into trouble just above the Michigan gas pay sands. One drilling, one shut down and one rigging comprised remaining Broomfield activity. Kenjos Oil Corp.'s No. 1 Calvin Chivington, SE SW NE Section 3-14n-3w, Chippewa Township, was drilling into the Dundee, while Hall-Be-Oyle & Gas Corp.'s No. 1 O. D. Leiter, SE NE SW Section 33, Sherman Township, was nearing the Michigan gas sands.

Thompson Brothers, Inc.'s No. 1 Isabella County State Bank, SE NW SW Section 22, Deerfield Township, was shut down at 1,294 feet, just above the Michigan gas sands. Thirteen other Isabella County projects were listed, including three drilling, two shut down and three moving in or rigging in Denver Township, one drilling, one fishing and one rigged up in Isabella Township, and one fishing and a location in Rolland Township.

Montcalm County

A show of oil and gas was struck by Tope-Voorhees-Blunt in their No. 1-A on the Neff ranch, SW SE NW Section 22-11n-6w, Day Township, Montcalm County. Daily Crude Oil Co.'s No. 4 H. P. Christensen, SE SW SE Section 3-12n-6w, Home Township, same county, was nearing the upper Traverse. Three other Montcalm tests were listed, including one fishing in Pierson Township, one rigging and another shut down in Richland Township.

No tests in Mecosta County were nearing production, although 10 were listed, including single projects driving pipe in Austin, Green and Millbrook Townships, one rigging in Hinton Township, one moving in in Martiny Township, one drilling and one rig on location in Millbrook, one moving in for a Morton Township test, and two rigging in Sheridan Township.

Williams Oil Co. was reported to have leased a block of 1,400 acres in Sections 21, 22, 23 and 24, Cato Township, Montcalm County, south of the village of Lakeview.

Ogemaw County

Youman's-Dalton Oil & Gas Co.'s No. 1 Husted, NW NW SE Section 36-22n-2e, West Branch Township, Ogemaw

(Continued on Page 78)

South Turner Valley Well Increases Its Naphtha Recovery After Being Shot

By VICTOR LAURISTON
Staff Correspondent, Canadian Fields

CHATHAM, Ontario, Oct. 27.—On the east side of the South Turner Valley structure, North West Co.'s No. 1 Calgary and Edmonton-Longview, LSD 5, Section 27-18-2w5, after a shot has increased its naphtha recovery from around 21 bbls. to 50 bbls. a day.

In the Mar Jon section, Spooner Oils' No. 5 Anaconda, LSD 1, Section 28-18-2w5, got the Madison limestone at 5,514 feet and will start to drill into the lime in a few days. It offsets to the north Highwood-Sarcee's No. 1 producer which got the lime at 5,352 feet. In the same section, Publix Oil & Gas Co.'s No. 1, LSD 8, is below 4,150 feet. It got a lot of gas in the upper sands and considerable light crude in the Dalhousie. Renfrew Royalties' No. 1 Morris & Goodfellow, LSD 3, same section, got the cardium sandstone marker just below 2,500 feet. Pacalta Oils' No. 1, LSD 7, same section, has resumed with rotary tools from 5,120 feet. Carleton Royalties' No. 1, LSD 2, is below 5,066 feet, after drilling through the Home sand at 4,920 feet. It got a little gas in the Home sand. British Dominion Oil & Development Corp.'s No. 4, LSD 6, passed through an oil show between 3,310-20 feet and is in the lower Benton formation below 3,500 feet.

Vancouver and Calgary interests are arranging to complete Livingston Syndicate's No. 1 N half, LSD 5, Section 34-18-2w5, on the east side of the structure. It has been standing at 2,870 feet.

In the Central Turner Valley Field, New McDougall-Segur Oil Co.'s No. 7, Section 12-20-3w5, bottoming at 3,600 feet, is fishing. When drilling was stopped to run casing there were about 75 feet of 54 gravity crude in the hole, which is thought to be on top of the sand.

Turner Valley Quotas

Details of the new gas quotas for the producing wells in Turner Valley have been issued by the petroleum and natural gas branch of the Alberta lands and mines department. The 90 producing wells will be allowed a maximum aggregate flow of approximately 252,000,000 feet a day, compared with the former allowance of about 270,000,000 feet. Before conservation measures were adopted, the open flow was as high as 500,000,000 feet daily, with considerable wastage. Under the first conservation measures this was cut to about 198,000,000 feet; but owing to complaints of naphtha shortage the permitted flow was later increased to 270,000,000 feet.

The report issued by the division notes the abandonment of Dome Oils' No. 2, LSD 16, Section 36-19-3w5, and Vulcan Oils' No. 1, LSD 11, Section 13-20-3w5; and the sealing in of Mill City Petroleums' No. 1, Section 4-19-2w5; Alberta Federated Oils' No. 1, Section 1-20-3w5, and McLeod Oil Co.'s No. 3, LSD 16, Section 1-20-3w5.

Calgary and Edmonton

Production in the Turner Valley Field in August from wells on Calgary & Edmonton Corp. acreage amounted to 23,667 bbls., compared with a production in the same month last year of 21,672 bbls. Among the newer wells in which the company is interested are Merland's No. 2, LSD 13, Section 27-18-2w5, recently spudded; Northwest Co.'s No. 1 Longview, which has been placed in steady production after a shot which increased

(Continued on Next Page)

Canadian Fields

(Continued from Preceding Page)

recovery to 50 bbls. a day; and Franco Oils' No. 1 on the Cardston structure in southern Alberta, now drilling below 200 feet.

Royalite Operations

A number of independent companies in the Turner Valley Field will share in the Royalite Oil Co. dividend of 75 cents on November 23, as a result of the sale of their limestone rights to Royalite in return for stock. Among these companies are McLeod Oil Co., Okalta Oils, Ltd., Alberta Pacific Consolidated Oils, Ltd., New McDougall-Segur Oil Co. and Calmont Oils, Ltd. The dividend will represent a distribution of approximately $500,000 on 661,348 shares outstanding. and will bring the company's dividend payments to $3,163,890. Royalite earnings for 1934 are reported in excess of 1933.

Tests in the Foothills

In the forest reserve area west of Olds, Hunter Valley Oil Co.'s No. 1 McLaren, LSD 12, Section 13-31-10w5, is below 4,155 feet.

On the Watson structure west of Lundbreck, Raven Oils' No. 1, LSD 1, Section 20-9-2w5, is working on casing at 1,400 feet. Mar Jon Oil Co.'s No. 3, LSD 3, Section 4-10-2w5, is below 130 feet. Mar Jon-Maxmont's No. 4, LSD 10, Section 20-9-2w5, is rigged up. British Columbia interests are planning to drill a test on acreage subleased from Raven Oils, Ltd. The Maxmont interests are planning to put two additional rigs in the field this fall.

Moose Dome Prospect

Vancouver capital represented by W. F. Irwin is reported interested in a projected test on the Moose Dome structure in the southern Alberta foothills west of Calgary. Moose Oil's No. 1, LSD 16, Section 29-22-6w5, drilled several years ago, encountered somewhat unusual conditions. It started in the Madison lime below the normal producing horizon of the Turner Valley Field, and apparently entered the Devonian lime at 550 feet and was still in limestone when drilling was discontinued at 2,834 feet. Nine gas shows were encountered between 490 and 2,815 feet and an oil show at 2,220 feet. At a recent visit a heavy flow of gas was shown when the valve was opened and a quantity of light oil dripped from the pipe. Exposures indicate a gentle dome formation, No. 1 being located on the apex. Moose's No. 2 was spotted some time ago in the same section, but no work has been done and a new location may be made for the forthcoming test.

Red Coulee Field

In the Alberta end of the international Red Coulee Field, Vanalta's No. 6, LSD 3, Section 4-1-16w4, is below 2,300 feet. Vanalta's No. 4, in the same field, has been showing a drop in production and will be shot.

Saskatchewan Gas Test

On the Dirt Hills structure in southern Saskatchewan, 50 miles southwest of Regina, Pine River Petroleums' No. 1, LSD 8, Section 23-12-24w2, bottoming at 4,365 feet, is testing a gas sand encountered at about 1,700 feet.

Wainwright Field

In the Wainwright Field, east central Alberta, Gold Standard Oils, Lt., is putting the old Interior Oils' No. 1, later Wainwell's No. 1, in production. It was completed originally in 1929 to 2,225 feet, with a large flush production reported, but has been off production for some years. Location is in LSD 9, Section 36-44-7w4.

Drilling in Ontario

In the old Tilbury Field, Kent County, Ontario, Ladd & Ziegen's No. 1, Guy Mifflin farm, S. Lot 7, Concession 14, Tilbury East Township, had a natural flow of 61,000 feet in the Tilbury sand. It was shot, increasing production to more than 330,000 feet with 280 pounds rock pressure. The outfit will be moved for a new test.

Further east, in the De Clute Field, Union Gas Co.'s No. 25, SE Lot 17, Concession 15, Raleigh Township, is below 250 feet. Gas Producers Syndicate's No. 1, Gilbert Pardo farm, Raleigh Township, 2½ miles west of Cedar Springs, is fishing at about 900 feet.

In the Dover Field, Kent County, F. H. Stover & Son's No. 2, Sam Antaya farm, is below 1,900 feet. Ajax Oil & Gas Co.'s No. 9, Johnson farm, is below 1,730 feet. Prairie Oil & Gas Co.'s No. 2, Stephens farm, Lot 2, Front Concession, Dover East Township, is rigring, to resume from 1,035 feet.

In the Dawn Field, Lambton County, Union Gas Co.'s No. 78, NW Lot 29, Concession 11, Dawn Township, is below 1,865 feet with considerable salt but no gas or oil. In Moore Township, American Engineering Co.'s No. 4, I. C. Kerr farm, Lot 21, Concession 1, finished around 840 feet with less than a foot of sulphur, and the outfit is being moved for No. 5, less than 100 feet north of No. 1 discovery well.

In the Eden Field, Norfolk County, south of Tillsonburg, Bay Sunday's No. 1 (Middleton & Norfolk Gas Co.), Lot 5, Concession 3, North Talbot Road, Middleton Township, encountered a flow of sulphur gas in the upper horizons, followed by a heavy flow of mineral water. The water undermined the rig and large quantities of cement have been used in an effort to prevent caving. A little farther west, Midwal Oil & Gas Co.'s No. 1, Lot 2, Concession 3, North-Talbot Road, Middleton Township, is drilling. On the Stilwell and Coyle farms, E. P. Rowe and associates have several outfits at work, and T. J. McCutcheon of Dunnville and David Wright of Sarnia are bringing in outfits to drill new tests. In one of the earlier wells to the southeast, a show of shallow oil was encountered, and George Willets of Bothwell is putting down a series of tests for shallow oil for the Rowe interests.

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Interest in Louisiana and Arkansas Wildcat Tests Deepens as They Approach Expected Pay

By J. R. CRUMPTON
Staff Correspondent, Louisiana-Arkansas

SHREVEPORT, La., Oct. 29.—Wildcats in the North Louisiana and Arkansas districts of this division are nearing the expected pay sands, and the coming week should determine their success or failure. These tests range in depth from the shallow and intermediate horizons in the Upper Cretaceous to the Upper Trinity. Four of the latter, three in North Louisiana and one in Southwest Arkansas, are drawing most of the attention and are particularly interesting as no previous tests in these localities have been drilled to the Trinity horizon.

ARKANSAS

In Lafayette County Benedum & Trees' No. 2 Bodcaw Lumber Co., Section 19-16-23, topped the red beds at 2,600 feet and anhydrites at 3,417 feet. The bit is drilling in anhydrites at 3,550 feet and should encounter the Glen Rose Oolitic lime in the Upper Trinity series within the next 100 feet. The first test of these operators in the immediate vicinity was junked and abandoned a few weeks ago before reaching the pay depth when the drill stem stuck in the hole.

About 8 miles southwest of the Benedum & Trees wildcat in the same county, Earl F. Fox, of Shreveport, has blocked 5,000 acres adjoining on the south his first block of 4,700 acres, a few miles west and south of the town of Lewisville. A. H. Tarver, independent operator of Shreveport, is interested with Mr. Fox in the acreage and will drill the well. Derrick has been erected and rig is moving in on No. 1 Russell, NE cor. NW Section 12-17s-25w. The test is about 1¾ miles south of two wells drilled on the upper block by Mr. Fox and associates and is a continuance of operations along the Balcones or Humble fault extending through this part of Southwest Arkansas. The two previous tests on the Coleman Brothers lease in Section 36-16-25, were apparently downthrow wells or on the north side of the fault, but the operators say they are certain that the present test will be on the south side of the fault line.

SOUTHERN ARKANSAS

Operations in South Arkansas remain steady despite several recent failures. Dudney & Woodward have resumed drilling on their No. 1 Pearce, Section 7-17-20, near the town of Magnolia in Columbia County, having reached a depth of 1,290 feet. Of the four wildcats drilling in Hempstead County, only one is active, but another. Arkansas Drilling Co.'s No. 1 Jones, Section 11-14-24, is arranging to resume operations from 2,808 feet after clearing up titles on the block of acreage. In Section 17-14-24, F. W. Martin & Co.'s No. 1 Lafferty tested dry on drill stem test at 2,900 feet and is drilling ahead in red gumbo at 3,000 feet.

Northwest of the Miller County Field, King Oil Corp.'s No. 1 C. H. Schroder, Section 24-14-28, an interesting wildcat, is coring at 2,684 feet. A show of gas in sand was encountered in this well at 2,587 feet. In the field proper, Magnolia Petroleum Co.'s No. 5 Olivet, Section 3-16-26, tested dry from 4 feet of sand from 2,934-38 feet and liner will be reset for another test.

A Union County wildcat, Short & Hayes' No. 1 J. W. Taylor, Section 10-17-14, is drilling at 2,460 feet after setting 10-inch surface casing at 147 feet. Mrs. R. K. Jones and others' No. 1 J. Davis, Section 28-16-14, a contemplated deep test in shallow production, is fishing for 1,375 feet of 7-inch casing lost in the hole while setting at 2,764 feet.

This district reported only three new locations in addition to the Tarver test in Lafayette County, all of them in the vicinity of the Miller County Field, east of Texarkana.

NORTH LOUISIANA

Benedum & Trees' No. 1 J. W. Sprawls, Section 17-15-6, Bienville Parish, is checking lower in search of the Upper Trinity than was foreseen a week ago. The test is drilling at 4,550 feet and has not yet contacted the anhydrites. As there was almost a complete absence of red beds after drilling through the Woodbine, the operators thought the anhydrites and the subsequent Upper Trinity would be contacted high, but the drilling has been mostly in hard lime for the last few hundred feet.

Northeast of this test in the same parish, T. L. James' No. 1 Harrison, Section 2-16-6, topped the Arkadelphia at 2,014 feet and cored Nacatoch sand from 2,102-16 feet. Arrangements are being made to test a break in the chalk around the 2,500-foot level. This is a Blossom sand test, but may drill deeper if that formation proves to be dry. The log reveals that the well is checking about regular with other wildcats drilled in that area, which encountered thick bodies of Blossom sand, but carried salt water.

A proposed deep test to 5,000 feet in Natchitoches Parish, Benedum & Trees' No. 1 Carver estate, Section 6-8-7, encountered drilling difficulties the past week. The top of the Midway was contacted at 2,670 feet and with the total depth at 3,127 feet it was found that the hole was crooked. It was cemented back to 2,000 feet. Drilling will be resumed immediately.

The fourth deep test of interest is E. T. Oakes' No. 1 Bryant, Section 30-13-15, in the western part of DeSoto Parish. The well recently bailed dry, but with a good show of gas from 5,416 feet, and at present is coring hard lime, thought to be Oolitic lime of the Glen Rose, at 5,449 feet. It is reported that a better show of gas is evident at the present depth than where the test was made two weeks ago.

Shallow Wildcats on Test

A number of shallow wildcats will be on test during the coming week. Dempsey-Manziel's No. 1 T. D. Thigpen, Section 33-13-13, DeSoto Parish, set 8¼-inch casing at 1,660 feet with the total depth at 1,730 feet. The well will be treated with acid to test a show from the chalk rock at this depth.

In the same parish Hester and others' No. 1 Alston, Section 11-11-16, is arranging to set 6-inch casing at 2,000 feet with the bottom of the hole at 2,200 feet. No report has been received at this writing on the amount of sand encountered in this well.

C. M. Cope and others' No. 1 Thomas, Section 34-13-8, about 12 miles east of Coushatta in Red River Parish, failed to make a commercial well in the chalk at 1,630 feet and is drilling ahead at 1,920 feet. This well was treated with acid, lubricated with crude oil and bailed for several days.

A third shallow test in Winn Parish, all in the same immediate vicinity, Red River Refining Co.'s No. 3 Tremont Lumber Co., Section 26-11-1w, is coring in green shale at 1,370 feet.

In Catahoula Parish, T. R. Hincy's No. 1 Louisiana Central Lumber Co., Section 32-9-6e, is drilling ahead at 300 feet after setting 8-inch surface casing at 164 feet. This well may encounter the shallow gas sand in that area around the 900-foot level, but if not satisfactory will proceed to the lower formations. A number of gas wells have been found in this parish at various depths, but the presence of excessive amounts of salt water killed them off.

Completions and New Operations

The North Louisiana district reported five completions and seven new operations, but none of them was important from a wildcatting standpoint. The shallow Nacatoch producing gas sand in the Blanchard Field, Caddo Parish, was defined for productiveness on the west during the past week with two failures. W. T. Boyd's No. 2 Mitchell, Section 6-18-6, was dry at 999 feet, and Louana Oil & Gas Co.'s No. 4 Hammock, in the same section was dry and abandoned at 997 feet. Both tests were over one-half mile outside the proven lines. In the same field, on the southeastern edge, M. Segall and others' No. 1 Sharpe, Section 11-18-6, set 2½-inch tubing with packer and is estimated as a 1,000,000-foot gasser from 928 feet. The two other completions were both failures, one in the Zwolle Field and the other in the Converse area, Sabine Parish. Each well had been shut down for sometime after failing to make a producer from the chalk rock.

MISSISSIPPI

The Mississippi district turned in three new operations during the week, two of which were wildcats. In Harrison County, the Big Ridge Oil Co. has assembled a block of acreage and started operations on its No. 1 Hingin in Section 13-7s-10w. The test has set 8-inch surface casing at 60 feet and is drilling in sandy shale at 550 feet. The Pelican Oil & Gasoline Co. will try for better success on its second test in Issaquena County. Derrick is up on its No. 1 Martin & Bender in Section 11-12n-8w. The third new operation was staked in the Jackson gas field in Hinds County by the City of Canton, No. 2 Belhaven in Section 35-6n-1e.

The only completion reported was Harry Elliott and the Orbit Drilling Co.'s No. 1 R. L. Parker, Section 14-14-1e, in Warren County. This test which has been shut down since May of this year was abandoned as dry at 3,252 feet.

The United Gas Public Service Co.'s second test in Greene County, No. 1 Greene County School Land, Section 16-1n-5w, has spudded in, set 16-inch surface casing at 260 feet and is drilling at 1,805 feet. The only other active wells in this district during the past week were in Monroe County. In the Amory gas field, P. J. McAlpine's No. 1 Crook, Section 4-13s-18w, is cleaning out an old hole, abandoned in 1928 at 720 feet by the Buffalo Oil & Gas Co. Eight-inch casing will be set in the well around the 500-foot level as soon as the hole is cleaned and reamed. About 15 miles southeast of the Amory Field, the same operator is drilling at 1,800 feet on his No. 1 Frank Rye in Section 15-15s-17w.

Daily Production

Estimated daily gross production all companies week ending October 26:

NORTH LOUISIANA	
Bellevue	500
Caddo, light	4,460
Caddo, heavy	1,660
Converse	1,435
Cotton Valley	500
DeSoto and Red River	1,500
Elm Grove	365
Haynesville	3,720
Holly	155
Homer	2,700
Pleasant Hill	200
Sarepta-Carterville	650
Urania	3,285
Zwolle	2,805
Total	23,925
SOUTH ARKANSAS	
Champagnolle	1,120
El Dorado	2,400
Lisbon	370
Miller County	1,445
Nevada	860
Smackover, light	2,320
Smackover, heavy	19,145
Stephens	620
Urbana	2,385
Total	30,675

Wildcat Operations in Louisiana-Arkansas

(Rotary operations unless otherwise designated)

NORTH LOUISIANA

AVOYELLES PARISH

Bell Oil Co.'s No. 1 Woodley, 330 ft. S and W NE cor. NW Sec. 11-2n-5e.
Washing to bottom 1,700 ft.

BIENVILLE PARISH

Benedum & Trees' No. 1 J. W. Sprawls, 660 ft. S, 330 ft. W, NE cor. NW NE Sec. 17-15-6.
Drlg. 4,550 ft.

T. L. James' No. 1 Harrison, SW cor. NW NW Sec. 2-16-6.
Drlg. 2,290 ft.

Saline Drlg. Co.'s No. 1 Pardee, Sec. 27-14-6.
Set 10-in. 142 ft.

BOSSIER PARISH

Goldman & Sklar's No. 4 Caplis, 1,527 ft. S, 1,482 ft. E, NW cor. Sec. 25-16-12.
Drlg. 1,325 ft.

Howard & Baird's No. 1 Gold, 150 ft. S and E, NW cor. Sec. 36-20-13.
S.D. for water 1,136 ft.

McKinney & Stewart's No. 1 Nattin, 470 ft. W, 620 ft. S, NE cor. Sec. 22-22-14.
S.D. 2,972 ft.

L. M. Moffitt, tr.'s No. 1 W. H. Martin, 330 ft. S and E, NW cor. SW NW Sec. 2-21-12.
Drlg. 1,769 ft.

Producers O. & G. Co.'s No. 1 Weiner, 660 ft. N and W, SE cor. Sec. 7-17-11.
Arranging to set 4½-in. at 3,984 ft.

United Gas Pub. Ser. Co.'s No. 2 Skannell Unit, 990 ft. N, 660 ft. W, SE cor. Sec. 14-17-12.
Set 7-in. 4,009 ft.; T.D. 4,274 ft.

United Gas Pub. Service Co.'s No. 1 Herold Unit, 50 ft. S and W, NE cor. SW SE Sec. 13-17-12.
Fishing for bit 3,945 ft.

CADDO PARISH

Ark.-La.-Tex. O. & G. Co.'s No. 1 Simon, 330 ft. N and E, SW cor. Sec. 15-20-15.
W.O.S.R. 2,236 ft.

W. T. Bell et al's No. 1 Bostick, 1,320 ft. E, 660 ft. N, SW cor. Sec. 12-22-16.
S.D. for water, 2,540 ft.

S. Bendor's No. 1 Starr, 150 ft. N, 195 ft. E, SW cor. SW Sec. 26-20-16.
W.O.S.R. 2,258 ft.

Burkett O. & G. Co.'s No. 1 Lindholm, 400 ft. S and E, NW cor. NE SE Sec. 15-17-14.
S.D. 1,046 ft., repairing rig.

Capitol O. & G. Co.'s No. 1 Noel Est., 300 ft. S and E, NW cor. NE Sec. 12-20-14.
S.D. 450 ft.

O. L. Hickman's No. 1 fee, 1,046 ft. S, 1,700 ft. E, NW cor. Sec. 36-17-15.
Drlg. 1,130 ft.

A. D. King, tr.'s No. 1 Roach, 641 ft. E, 375 ft. N, SW cor. SE Sec. 4-14-16.
S.D. 2,128 ft.

Shreveport Oil Corp.'s No. 1 Muslow, 412 ft. N, 560 ft. E, SW cor. NW Sec. 4-20-15.
W.O.S.R. 2,182 ft.

CALDWELL PARISH

Terrell & Price's No. 1 La. Central Lbr. Co., 200 ft. N, 200 ft. W, SE cor. NW NE Sec. 18-11-3e.
T.A. 3,485 ft.

CATAHOULA PARISH

T. R. Hincy's No. 1 La. Central Lbr. Co., Sec. 32-9-6e.
Set 8-in. 164 ft.

DE SOTO PARISH

L. H. Alderson's No. 1 Peek, SE cor. NW

(Continued on Page 63)

Central West Fields

(Continued from Page 55)

man & Weihl abandoned Nos. 1 and 2 O. G. Miller farm, Section 34, and also Nos. 1, 2, 3 and 4 on the Adam Thielman farm, same section. Ohio Oil Co. abandoned Nos. 19, 16 and 25 on the Matilda Dyroff farm, Section 28, same township. St. Clair Oil & Gas Co. abandoned No. 2 Fred Miller, Section 34, same township.

In Wabash County, Mayhugh and others abandoned Nos. 7 and 12 on the Kogan heirs farm, Sections 1 and 2 Wabash Township. Snowden-McSweeney Co. abandoned No. 1 Sarah E. McMillan farm, Section 9, same township.

KENTUCKY

There were 15 wells completed in Kentucky, 11 wells in Ohio County, of which 10 were producers with an initial production of 735 bbls. and one dry hole; and three in Hancock County, with an initial of 200 bbls. and one dry hole, while Logan County struck a 20-bbl. initial producer.

In Ohio County more activity was shown than in any of the other producing areas. In the Mathews Pool Snowden-McSweeney Co.'s No. 7 on the O'Dell heirs farm produced an initial of 80 bbls. In the Oak Station Pool, same county, Cumberland Petroleum Co.'s No. 12 on the Rolla Richards farm, showed an initial of 100 bbls., and No. 13, same farm, produced 85 bbls. Same company's No. 10 on the Sidney Lancaster farm, in the Roberts Pool, produced 110 bbls. initial. Vickers and others' No. 8 on the Sally Jones 50 acres, in the same pool, produced 135 bbls. Same parties drilled in No. 9 also on the Sally Jones farm, with an initial of 100 bbls. Vickers and others' No. 7 on the Sally Jones farm, in the Oak Station Pool, produced 50 bbls. initial. J. C. Miller's No. 5 C. Bogard farm, Roberts Pool, was a dry hole. In the same pool, Mark-Bell and others' No. 6 on the Charles Wedding farm produced an initial of 45 bbls. and No. 7, same farm, produced but 5 bbls. initial. Lowman-Daily and others' No. 1 F. Dodd farm, same county, produced an initial of 25 bbls.

In Hancock County, Joseph B. Mayer's No. 9 on the J. W. Matthews farm, in the Matthews Pool, produced 100 bbls. initial, and Chester Oil Co.'s No. 1 on the Ida Fuqua's farm, also produced an initial of 100 bbls. Goldberg and others' No. 2 James Dunn farm was dry in the Jet sand.

In Logan County, E. C. Harvey and others' test on the Pondy London's 206 acres, in the northeast part of the county, produced an initial of 20 bbls. from a total depth of 1,460 feet.

TENNESSEE

In Haywood County, E. R. Henderson junked his test on the Jarrett farm, 5 miles from Brownwood, at a depth of 2,250 feet, and skidded the rig 150 feet north for No. 2. Some large blocks are being taken, regardless of this failure.

Kansas Wildcats

(Continued from Page 56)

BOOKS COUNTY

Stearns & Streeter's No. 1 Meyers, NE NW NW Sec. 34-9-16w.
Spudded.

RUSH COUNTY

Corbett, Barbour et al's No. 1 Schmidt, SW SW SE Sec. 10-17-16w.
Set 12-in. csg. 1,096 ft.; drlg. 1,115 ft.

RUSSELL COUNTY

Blair et al's No. 1 Fink, SW NW SE Sec. 16-14-14w.
Rigging up.

Eldorado Ref. Co.'s No. 1 Stratman, SW SE SE Sec. 33-14-11w.
Set 6-in. csg. in Oswald lime 2,876 ft.; drlg. 2,920 ft.

Tom Palmer et al's No. 1 Herbel, NW SW Sec. 4-12-11w.
Set 8-in. csg. 2,196 ft.; drlg. 2,730 ft.

SALINE COUNTY

Dieter et al's No. 1 Herrington, NE NW SE Sec. 3-13-1w.
Set 15-in. pipe 74 ft.; drlg. 605 ft.

SCOTT COUNTY

Atlantic Oil Prod. Co.'s No. 1 Vaniman, C SE NE Sec. 15-20-33w.
Top K.C. lime 3,945 ft.; set 10-in. 4,014 ft.; C.O.

SEDGWICK COUNTY

Aladdin Pet. Co. et al's No. 1 D. Lauck, SE NE NW Sec. 21-25-2.
Rig.

Allison & Fitzwilliams et al's No. 1 Struthers, NE SW Sec. 34-28-2w.
T.D. 1,508 ft.; run 12-in. csg.; drlg. 1,685 ft.

Jones, Kirk et al's No. 1 McQuillan, NE NW NE Section 21-29-2w.
Simpson 4,039-4,101 ft.; dry and abd.

Leo Keller et al's No. 1 Russell, SW SW NW Sec. 16-29-2.
Cellar.

D. R. Lauck et al's No. 1 Roy, SE SW Sec. 24-29-1w.
Drlg. 2,905 ft.

Syndicate O. & G. Co. et al's No. 1 Ratzlaff, NE NW NW Sec. 30-26-2.
Drlg. 920 ft.

SUMNER COUNTY

Wentz et al's No. 1 Horsley, CSL SW SW SW Sec. 18-35-1.
Drlg. 3,075 ft.

TREGO COUNTY

Marathon Oil Co.'s No. 1 Kline, SW SE Sec. 19-14-24w.
Set 6-in. csg. 4,280 ft.; C.O.

WASHINGTON COUNTY

Rose Oil Co. et al's No. 1 Penwell, NE NW SE NE Sec. 16-3-3 (O.W.D.D.).
Old T.D. 1,720 ft.; R.U. and S.D.

WOODSON COUNTY

Schwartz et al's No. 1 Collins, SW NW NE Sec. 30-23-14.
Drlg. 610 ft.

Gulf Coast Wildcats

(Continued from Page 50)

1,950 ft. S and 750 ft. E of westerly NW cor. 500-ac. tract, Thos. Hebermaches Sur.
Prepare to set whipstock at 4,360 ft.; T.D. 5,135 ft.

BOLING—FORT BEND COUNTY

Allied Minerals, Inc.'s No. 1 J. H. Blackwell, 1,400 ft. from E line, 100 ft. from S line of 50-ac. of J. H. Blackwell 100 ac., John Huff Sur.
Drlg. 680 ft.

Midland Oil Co.'s No. 1 P. F. Coulter, 150 ft. from S line, 4,174 ft. from W line of 100-ac. tract, Miller League No. 2.
Drlg. shale 4,000 ft.

Allied Minerals, Inc.'s No. 1 E. C. Farmer, James Scott League, 750 ft. SE of NW line and 150 ft. SW of NE line of Gulf Prod. Co.'s E. C. Farmer 50-ac. tract.
Set surface csg. 915 ft.

Allied Minerals, Inc.'s No. 1 J. R. Farmer, 150 ft. out of most southerly 50-ac. tract, James Scott Sur. (workover).
Drlg. lime rock 3,714 ft.

Irwin Larsen et al's No. 1 J. R. Farmer, 100 ft. NW and 100 ft. SW from E cor. of 125-acre lease, James Scott Sur.
Location.

THOMPSON—FORT BEND COUNTY

Gulf Prod. Co.'s No. 9 Gubels, 450 ft. N, 475 ft. W of SE cor. of lease, Samuel Kennedy League.
Location.

Gulf Prod. Co.'s No. 6 Hammerstram, 330 ft. from S line, 330 ft. from N line of lease, Kennedy Sur.
T.D. 5,335 ft.; I.P. 20 bbls. per hr.; ⅝-in. choke; comp.

ORCHARD—FORT BEND COUNTY

Gulf Prod. Co.'s No. 41 Moore, 3,373 ft. S along W line from NW cor. of James Frazier Sur., and 2,154 ft. at R/A.
Drlg. shale 3,944 ft.

HIGH ISLAND—GALVESTON COUNTY

Yount Lee Oil Co.'s No. 42 Cade, N. Fitzsimmons Sur., half way between Nos. 26 and 28 and 150 ft. E at right angles.
Rig up.

Yount Lee Oil Co.'s No. 22 Smith.
Drlg. shale 4,125 ft. in sidetracked hole.

Yount Lee Oil Co.'s No. 1 Mace Stewart, Martin Dunman Sur.
Drlg. shale 4,672 ft.

BATSON—HARDIN COUNTY

John A. Deering et al's No. 1 Hooks, Willis Donoho Sur., S extension test.
Cmtd. csg. 4,862 ft.; T.D. 4,896 ft.; prepare to drill plugs.

ARRIOLA—HARDIN COUNTY

Houston Oil Co.'s No. 4-X Arriola fee, 400 ft. E of No. 3-X.
Coring 3,025 ft.

Republic-Houston Oil Co.'s No. 8 fee.
Comp. as gas well; T.D. 3,052 ft.

SARATOGA—HARDIN COUNTY

Rio Bravo Oil Co.'s No. 5 R. Jordit, 60 ft. W. 495 ft. S of NE cor. of Jordit tract.
Drlg. gumbo 1,180 ft.

Mines Bros.' No. 1 Coswell.
Swabbing; T.D. 3,323 ft.

SOUR LAKE—HARDIN COUNTY

Alpha Pet. Co.'s No. 2 Weiss, E flank of dome.
T.D. 5,665 ft.; P.B. to 5,100 ft. to sidetrack.

Sun Oil Co.'s No. 2 Bernard Corp., 150 ft. from N and W lines of Lot 11, H.T.&B. Sur., Sec. 69.
Drlg. shale 6,505 ft.

Texas Co.'s No. 313 fee, 150 ft. S and 250 ft. E of No. 308 fee.
Cmtd. 10-in. csg. at 645 ft.; drlg sand and boulders 927 ft.

GOOSE CREEK—HARRIS COUNTY

Kerring's No. 1 Williams, 180 ft. from SE cor. and 55 ft. NE of Hybush's No. 3, in W. Scott upper league.
Cellar.

Humble O. & R. Co.'s No. 80 Simms-Smith, Scott Lower League, 1,000 ft. E of the most westerly W line, and 300 ft. N of the most northerly S line.
Drlg. shale 6,703 ft.

PIERCE JUNCTION—HARRIS COUNTY

A. & P. Prod. Co.'s No. 3 Whitehead, 150 ft. S of No. 5; 50 ft. from E line of lease, J. Hamilton Sur.
Drlg. 2,960 ft.

Benedum & Trees' No. 1 W. J. Settegast, 1,639 ft. from S line of Sur., and 100 ft. from E line of tract in the J. Kopman Sur.
Abd. 6,701 ft.

Gulf Prod. Co.'s No. 10 H. C. Cain, 399 ft. S and 290 ft. E of NW cor. of lease and 317 ft. N of No. 9, J. Hamilton Sur No. 879 (workover).
Drlg. sand 6,777 ft.

Rio Bravo Oil Co.'s No. 27-A Settegast, 377 ft. S, 553 ft. W of NE cor. of Settegast "A" tract, James Hamilton Sur.
Derrick.

Rio Bravo Oil Corp.'s No. 9-A Settegast, 1,575 ft. N line, 350 ft. E line NE cor. "A" lease, J. A. Kopman Sur.
Washing to bottom; T.D. 4,510 ft.

MYKAWA—HARRIS COUNTY

Danciger Oil & Ref. Co.'s No. 2 Minnetex, 150 ft. of N line and 85.9 ft. of E line of lease, Lot 253, Wm. Lovett Sur.
7-in. csg. 4,812 ft.; prepare to drill plugs.

West Prod. Co.'s No. 1 Lobit, C of Lot 17, Erin Gardens Subd., F. J. Rothaas Sur.
Drlg. 5,710 ft.

TOMBALL—HARRIS COUNTY

Amerada Pet. Corp.'s No. 2 Metzler, 466 ft. out of NW cor., Joseph House Sur.
Drlg. sand and shale 3,852 ft.

Amerada Pet. Corp.'s No. 3 Fitz-Rudel, 466 ft. from E line, 500 ft. from S line of 80-ac. lease, Joseph House Sur.
Drlg. shale 1,090 ft.

Humble Oil & Ref. Co.'s No. 5-B Hope, 1,900 ft. from S line and 466 ft. from W line of "B" lease, A. Senchall Sur., Abst. 722.
Location.

Humble Oil & Ref. Co.'s No. 2 J. Holderreith, 466 ft. S of most S line of cemetery and 572 ft. from E line of tract, C. N. Pillot Sur.
Comp.; T.D. 5,556 ft.; I.P. 558 bbls.; ¼-in. choke.

Humble O. & R. Co.'s No. 2 Kobs, 1,061 ft. S from N line, 623 ft. E of W line of 105-ac. tract, J. M. Hooper Sur.
Drlg. shale 4,936 ft.

KITTRELL-HOUSTON AND WALKER COUNTIES

Ben G. Barnett's No. 1 W. A. Reynolds, 330 ft. out of NW cor. of the NW 20 acres of the S 93 acres of Denton & Marshall lease, L. R. Clapp Sur.
Abd. 2,121 ft.

Boone Bros.' No. 1-A Texas Ling Leaf Co., 330 ft. from N and W lines of Texas Long Leaf Lbr. Co.'s 379-acre tract, Geo. Kellman Sur.
Drlg. sand 1,165 ft.

Crown Central Pet. Corp.'s No. 1 Texas Long Leaf Lbr. Co. and Thompson Bros., 150 ft. from W line, 150 ft. from N line of 40-ac. tract in J. S. Estheridge Sur., Abst. 399.
Location.

Humble O. & R. Co.'s No. 2 Shaw, 330 ft. from SE line of lease and 660 ft. SW of No. 1 Charles McEllis Sur.
Drlg. sand 1,210 ft.

Humble O. & R. Co.'s No. 1 Texas Long Leaf Lbr. Co., 330 ft. from SW line and 330 ft. from SE line of Texas Long Leaf Lbr. Co., 696-ac. tract, C. C. McEllis Sur.
T.D. 2,939 ft.; P.B. to 1,176 ft.; drlg.
Drlg. sand 2,950 ft.

Humble O. & R. Co.'s No. 2 Texas Long Leaf Lbr. Co., 330 ft. SW of NE line, 660 ft. SE of No. 3, Chas. McEllis Sur., Abst. 382.
Location.

Humble O. & R. Co.'s No. 3 Texas Long Leaf Lbr. Co., 130 ft. SE of NW line, 320 ft. SW of NE line, and 660 ft. NW of No. 2, Chas. McEllis Sur.
Location.

Trinity Dev. Co.'s No. 1 G. A. Knox, 1,000 ft. from SE line and 500 ft. from SW line of Wm. Prissick Sur.
Drlg. shale 1,465 ft.

VANDERBILT—JACKSON COUNTY

Imperator Oil Co.'s No. 1 Dutton, S C of Lot No. 11, Blk. 25, 450 ft. S of R.R. and 1,350 ft. W line of townsite, Ray Musquis Sur.
Rigged up and S.D.

Turman Oil Co.'s No. 1 T. H. Miller, 150 ft. each way out of E 50-ac. of Miller 100-ac. tract in Ray Musquis Sur.
Rig up.

BIG HILL—JEFFERSON COUNTY

Yount Lee Oil Co.'s No. 1-A Pipkin, 2,644 ft. S and 2,050 ft. W of NE cor. of survey
Cmtd. surface csg. 1,000 ft.; prepare to drill ahead.

FANNETT—JEFFERSON COUNTY

Gulf Prod. Co.'s No. 15 Thomas, 200 ft. W of Gulf's No. 7 Burrell.
Drlg. rock salt 2,091 ft.

CLEVELAND—LIBERTY COUNTY

Gulf Prod. Co.'s No. 6-C Kirby, 2,796 ft along N line of John Pleasants Sur. from NE cor. James Eldridge Sur. and 317 ft. E at right angles.
T.D. 5,875 ft.; I.P. 350 bbls.; tubing pressure 1,200 lbs.; comp.

ESPERSON—LIBERTY COUNTY

General Crude Oil Co.'s No. 14 Moores Bluff, 1,675 ft. S, 10 deg. 8 min. E of No. 10.
Drlg. sand 4,175 ft.

General Crude Oil Co.'s No. 9 Davis, 1,200 ft. each way from S and E lines of lease in D. Kokernut Sur.
T.D. 5,253 ft.; reaming.

General Crude Oil Co.'s No. 1 W. D. Kay, Malcom Duncan Sur., 1,537 ft. along N line from NE cor., 560 ft. S at R/A.
Spudded.

HANKAMER—LIBERTY COUNTY

Gulf Prod. Co.'s No. 3 Crow & Jacobs, 300 ft. each way out of SW cor. of survey, H.&T.C. Sur., A 253.
Location.

George Devore et al's No. 1 S. E. Exell, 175 ft. S of Gulf's No. 1 and 165 ft. from E line of 175-ac. lease in Levi Barrow Sur
Comp.; T.D. 2,617 ft.; I.P. 340 bbls.; ⅝-in. choke.

HULL—LIBERTY COUNTY

Gulf Prod. Co.'s No. 12 W. L. Thomas, 1,650 ft. N and 150 ft. E of SE cor. of 300-ac. tract, Jessie Devore Sur.
Drlg. rock 1,550 ft.

G. R. Brown and S. F. Bashara's No. 1 David Hannah, Jesse Devore league, 100 ft. S line, 150 ft. E line, 42-ac. Gulf tract
Derrick.

BUCKEYE—MATAGORDA COUNTY

United North & South Dev. Co.'s No. 1 Unit 4, Buckeye farm, J. C. Keller league, 214 ft. N line and 202 ft. E line of lease.
Swbd. S.W. and oil 7,381 ft.

United North & South Dev. Co.'s No. 1 Plotner, 1,210 ft. SE No. 1 Stoddard and 136 ft. W of right of way S.T.L.&B.M.Ry. Sur.
T.D. 7,910 ft.; swbng.; P.B. to 7,900 ft. after testing S.W.

United North & South Dev. Co.'s No. 1 Unit No. 52, 250 ft. N and 200 ft. W of SE cor. of Unit No. 58.
P.B. to 7,900 ft. after testing salt water.

MARKHAM—MATAGORDA COUNTY

Hawkins Oil Co.'s No. 1 Hawks fee, 1,350 ft. from N line and 1,650 ft. from E line of 20-ac. lease.
T.D. 600 ft.; derrick down.

Powers Prod. Co.'s No. 4 Myers, in line with wells Nos. 1 and 2, being 250 ft. E of No. 2.
Derrick down.

CONROE—MONTGOMERY COUNTY

George W. Strake's No. 2 Schaffe, 300 ft. from E line, 467 ft. from S line, C. B. Stewart Sur.
Cmtd. surface csg.

ORANGE—ORANGE COUNTY

Trio Oil Co.'s No. 1 D. S. Comer, 69 ft. W of E line and 39 ft. S of N line of 6.88-ac. tract in W. M. Dyson Sur.
Prepare to spud.

PORT NECHES—ORANGE COUNTY

Texas Co.'s No. 6 Kuhn, 150 ft. E, 150 ft. N of SE cor. of Mary Hall Sur.
Cmtd. 16-in. csg. at 112 ft.; drlg. gumbo 1,884 ft.

Texas Co.'s No. 8 Kuhn, 1,320 ft. N and 250 ft. E of SE cor. of Mary E. Hall Sur. No. 2 in T. J. Notgrass Sur.
Drlg. shale and lime 6,630 ft.

Texas Co.'s No. 9 Kuhn, 990 ft. N and W of SE cor. of Mary E. Hall Sur. No. 2.
Drlg. shale and sand 5,952 ft.; flowing 17 bbls. per day; comp.

LIVINGSTON—POLK COUNTY

T. D. Humph[illegible] No. 1 J. C. Whitforth, Block H.
Derrick.

Sun Oil Co.'s No. 1 Pratt, A. Viesca Sur., 330 ft. N line and 330 ft. E line of lease.
T.D. 4,315 ft.; P.B. to 4,244 ft.

GRETA—REFUGIO COUNTY

Atlantic and Stanolind's No. 7-G O'Brien.
Derrick.

Hewitt & Daugherty's No. 12 Lambert.
Rig up.

Humble Oil & Ref. Co.'s No. 9 Fannie Heard 933 ft. E of No. 7, 1,150 ft. S of No. 8
T.D. 4,385 ft.; to D.D.

Stanolind O. & G. Co.'s No. 4-A O'Brien, 1,000 ft. from N line, 800 ft. from S line of 79.8-ac. lease, Peoples Sur.
No report.

Stanolind O. & G. Co.'s No. 3 J. M. O'Brien, Peoples Sur.
No report.

United Prod. Co.'s No. 10 M. F. Lambert, Charles Hardwick Sur., 466 ft. from S line, 506 ft. from E or W line of Blk. 17
Testing 3,502 ft.

United Prod. Co.'s No. 11 M. F. Lambert, E. W. Hardwick Sur., 434 ft. from S line, 506 ft. from E line of Blk. 3.
T.D. 3,490 ft.; comp.; no gauge; csg. pressure 1,195 lbs.; tubing pressure 1,150 lbs.; ¼-in. choke.

United Prod. Co.'s No. 12 M. F. Lambert, Hardwick Sur., 469 ft. from S line, 50 ft. from W line of Blk. 4.
T.D. 3,490 ft.; comp.; no gauge; tubing pressure 650 lbs.; csg. pressure 550 lbs.; ¼-in. choke.

REFUGIO—REFUGIO COUNTY

Houston Oil Co.'s No. 1 Johnson, center of Blk. 63; (workover).
Perforated csg. 5,160-75 ft.; set screen.
T.D. 5,190 ft.; putting on gas lift.

Houston Oil Co.'s No. 17 W. J. J. Heard, 660 ft. SE of No. 16 W. J. J. Heard.
Rig up.

Houston Oil Co.'s No. 16 W. J. J. Heard 660 ft. SE of No. 15.
T.D. 4,940 ft.; I.P. 450 bbls.; 1,900 lbs. closed-in pressure.

Houston Oil Co.'s No. 16 F. B. Rooke, 660 ft. W of No. 15.
T.D. 4,915 ft.; I.P. 250 bbls.

Houston Oil Co.'s No. 17 Rooke, 600 ft. SW of No. 16 Rooke.
Derrick.

United Prod. Corp.'s No. 6 Power, center of Blk. 83, townsite.
P.B. to 5,179 ft.

United Prod. Co.'s No. 8 J. A. Lambert, 858 ft. N of NW cor. of W. Heard tract and 150 ft. W of tract line, L. M. Rogers Sur.
T.D. 6,096 ft.; pulled liner.

United Prod. Co.'s No. 4 Wilson Heard (workover).
Prepare to D.D.

COLETO CREEK—VICTORIA COUNTY

Rupert Cox's No. 1 Antone Trybil, R. Manchola Sur.
Derrick.

Albert Plummer's No. 2 Terrell, 698 ft. from NW line, 330 ft. NE line of 57-ac. tract, Manchola Sur.
Coring 4,350 ft.

Albert Plummer's No. 1 Zimmer, 330 ft. NE and SE lines of lease in Manchola Sur.
Coring 5,000 ft.

McFADDIN-O'CONNOR DISTRICTS—VICTORIA AND REFUGIO COUNTIES

Humble Oil & Ref. Co.'s No. 2 McFaddin, C. O. Edwards Sur.
Drlg. shale 5,020 ft.

Humble Oil & Ref. Co.'s No. 16 O'Connor, 933 ft. N by 45 deg. E of well No. 15, F. Rois Sur.
T.D. 3,038 ft.; I.P. 35 bbls. per hr.

Texas Co.'s No. 2 McFaddin, 9,150 ft. S and 200 ft. at R/A out of NW cor. of C. M. B. Hoyt Sur.
Made electric coring test; T.D. 6,230 ft.

CLAY CREEK—WASHINGTON COUNTY
Sun Oil Co.'s No. 11 Janner.
Drlg. 731 ft.
LOUISE—WHARTON COUNTY
Pure Oil Co.'s No. 2 Garrett, 990 ft. from NW and 330 ft. from NE of S cor. Sec. 28, T. W. Heard Sur.
Drlg. hard sand and sticky shale 3,473 ft.
Pure Oil Co.'s No. 3 Stewart, Morris & Cummings Sur., Sec. 25, 990 ft. out of SW cor. of 160 acres.
T.D. 8,236 ft.; sidetracked at 7,833 ft.; drlg. shale 7,899 ft.
SOUTH LOUISIANA FIELDS
BLACK BAYOU—CAMERON PARISH
Brownie Babbette Oil Co.'s No. 1 R. A. Moore, 562 ft. W, 50 ft. S of NE cor. of E½ of SE Sec. 18-12s-12w.
Swabbed S.W. and S.D.; T.D. 6,298 ft.
Shell Pet. Corp.'s No. 3 State.
T.D. 6,407 ft.; cored from 6,397-6,407 ft.; recovered 4 ft. with good odor.
Shell Pet. Corp.'s No. 20 Watkins, 1,611 ft. S and 216 ft. W of NE cor. Sec. 18-2s-12w.
Drlg. hard sand 1,903 ft.
BOSCO—ACADIA AND ST. LANDRY PARISHES
Superior Oil Prod. Co.'s No. 2 Arceneaux, 1,968 ft. S and 1,708 ft. W of NE cor. of Sec. 33-8s-3e.
Cmtd. 13⅜-in. csg. 1,246 ft.
Superior Oil Prod. Co.'s No. 1 Herbert, 2,095 ft. S and 2,058 ft. E of NW cor. Sec. 35-8s-3e.
Bldg. foundation.
Superior Oil Prod. Co.'s No. 5 Larcade, 1,665 ft. S and 483 ft. E of NW cor. Sec. 35-8s-3e.
Location.
Superior Oil Prod. Co.'s No. 2 Comeaux, 1,876 ft. S and 467 ft. W of NE cor. Sec. 34-8s-3e.
Drlg. sand and shale 7,757 ft.
Superior Oil Prod. Co.'s No. 3 Iseringhauser, 1,817 ft. E, 330 ft. N of SW cor. Sec. 27. Derrick.
Superior Oil Prod. Co.'s No. 1 Malancon, 376 ft. S and 63 ft. E of NW cor. SW Sec. 34-8s-3e.
Drlg. sand and shale 8,179 ft.
Superior Oil Co.'s No. 2 Larcade, 503 ft. N and 1,197 ft. E, SW cor. Sec. 26-8s-3e.
Drlg. shale 7,877 ft.
Superior Oil Co.'s No. 4 Larcade, 658 ft. S and 2,293 ft. E from NW cor. of Sec. 35-8s-3e.
Derrick.
Superior Oil Prod. Cor.'s No. 1 Lucien Lavergne, 596 ft. E and 330 ft. N of SW cor. of Sec. 27-8s-3e.
Drlg. sand and shale 8,518 ft.
Superior Oil Prod. Co.'s No. 1 Moise Lavergne, 269.7 ft. W and 98 ft. N of SE cor. of Sec. 28-8s-3e.
Derrick.
Superior Oil Prod. Co.'s No. 1 Trahan, 1,392 ft. N, 543 ft. W of SE cor. Sec. 27. Drlg. hard sand 6,856 ft.
Superior Oil Prod. Co.'s No. 3 Hermandes, 329 ft. from S line, 669 ft. W of NE cor. NW Sec. 34-8s-3e.
Cmtd. 13⅜-in. csg. at 1,251 ft.
Superior Oil Prod. Co.'s No. 2 Iseringhauser, 689 ft. from W line, 330 ft. from N line of 31.86-ac. tract, Sec. 35-8s-3e.
Sand and shale 8,167 ft.
Superior Oil Prod. Co.'s No. 1 L. Johnson, 1,623 ft. N and 762 ft. E of SW cor. NE Sec. 34-8s-3e.
Cmtd. 7-in. csg. 8,627 ft.; T.D. 8,650 ft.
Superior Oil Prod. Co.'s No. 3 Larcade, 542 ft. E and 500 ft. N, SW cor. Sec. 36-8s-3e.
Drlg. sand and shale 7,680 ft.
BAY JUNOP—TERREBONNE PARISH
Texas Co.'s No. 5-B State, 2,302 ft. N and 944 ft. E of SW cor. of Sec. 23-21s-14e.
Drlg. anhydrite 4,247 ft.
CAMERON MEADOWS—CAMERON PAR.
Burton-Sutton's No. 1 School Land.
T.D. 4,539 ft.; P.B. to 3,480 ft.; drlg. shale 3,610 ft.
Burton-Sutton Oil Co.'s No. 4 School Land. 2,591 ft. W and 150 N of SE cor. of Sec. 16-4s-13w.
Derrick.
Texas Co.'s No. 1 Miami Corp.
Drlg. shale and lime 7,364 ft.
EDGERLY—CALCASIEU PARISH
Edgerly Oil Co.'s No. 2 Bright-Penn, 300 ft. S and 150 ft. W of NE cor. Sec. 28-9s-11w.
Drlg. sand and shale 1,975 ft.
Emerson Oil Co.'s No. 1 Bright-Penn.
No report.
Emerson Oil Co.'s No. 2 Yount Lee, 300 ft. S, 150 ft. W of NW cor. NE cor. SW Sec. 28-9s-8w.
Location.
Union Sulphur Co.'s No. 2 Hunter, 1,366 ft. N 426 ft. W of SE cor. SW Sec. 31-9s-11w.
Abd. 5,364 ft.
DOG LAKE—TERREBONNE PARISH
Texas Co.'s No. 11 State, 150 ft. N and 1,474 ft. W, SE cor. Sec. 31-21s-16e.
Building derrick.
Texas Co.'s No. 15 State, 2,602 ft. N and 1,368 ft. W, SE cor. Sec. 31-21s-16e.
Drlg. sticky shale 2,533 ft.
QUEYDAN—VERMILLION PARISH
Pure Oil Co.'s No. 6, Alliance Trust, 667 ft. E, 1,787 ft. S line of lease, Sec. 34-11s-1w.
Coring shale 9,363 ft.
RACKBERRY—CAMERON PARISH
Gulf Prod. Co.'s No. 16 Irwin, 770 ft. from N line, 800 ft. from W line, SE cor. Sec. 12-12w-10s.
Location.
Gulf Ref. Co.'s No. 16-A M. P. Irwin, 388 ft. N and 341 ft. W of the SE cor. of Sec. 12-12-10.
T.D. 6,217 ft.; I.P. 500 bbls. per day; 5/16-in. choke.
Texas Co.'s No. 13-B State, 400 ft. N of NE cor. of lease, Sec. 13-12s-10w.
Cmtd. csg. 2,079 ft.
Texas Co.'s No. 14 State, 500 ft. SE of No. 13, Sec. 13-12s-10w.
Location.
Union Sulphur Co.'s No. 1 Barbee est., 1,720 ft. N line, 320 ft. E of SW cor. Sec. 13-12s-10w.
Drlg. sandy shale 5,011 ft.
Union Sulphur Co.'s No. 9 Humble, 300 ft. E and slightly N of No. 1 well, or 330 ft. N and 270 ft. E of the SW cor. of Sec. 12-12s-10w.
Drlg. sandy shale 5,463 ft.
Yount Yee Oil Co.'s No. 1-A Gulf Land, 2,000 ft. S and 50 ft. E of the NW cor. of Sec. 22-12-10.
Rig up.
Yount Lee Oil Co.'s No. 4 Carter, 150 ft. S, 305 ft. W of NE cor. of 30-ac. lease. Sec. 22-12s-10½w.
Moving in rig.
Yount Lee Oil Co.'s No. 2-A Gulf Land. 1,100 ft. S and 50 ft. E of the NW cor. of Sec. 21-12-10.
Rig up.
Yount Lee Oil Co.'s No. 15-A Gulf Land, 1,140 ft. S and 715 ft. W of the NE cor. of the SW of Section 16-12-10.
Drlg. rock 3,500 ft.
NEW IBERIA—IBERIA PARISH
I. Delcambre's No. 1 Viatar, 150 ft. E, 150 ft. S and 150 ft. W of SE cor. of tract, Sec. 41-12s-5e.
Fishing 245 ft.
Harrison & Abercrombie's No. 1 J. E. Schuring, 3,480 ft. S 75 deg. 25 min. west along section line from E cor. of fractional Sec. 44-12s-8e, and thence 1,121 ft. N 11 deg. 35 min. W, or at R/A to said line in Sec. 56-12s-7e.
Abd. 3,464 ft.
Y. D. Spell's No. 2 Sabiater, 1,200 ft. N and 28 ft. W of E line, Sec. 54-12s-7e, 150 ft. N of discovery well.
Drlg. shale 3,584 ft.
IOWA—CALCASIEU AND JEFF DAVIS PARISHES
Magnolia Pet. Co.'s No. 10 Walt, 330 ft. N and E of SW cor. of lease.
Drlg. sand 3,404 ft.
Magnolia Pet. Co.'s No. 3 Willett, 335 ft. from S line, 990 ft. from W line of NW Sec. 7-9s-6w.
Running screen; T.D. 6,970 ft.
Shell Pet. Corp.'s No. 1 Scott, 330 ft. out of NW cor. of lease.
T.D. 7,267 ft.; I.P. 1,190 bbls. per day; ¼-in. choke; tubing pressure 1,125 lbs.; csg. pressure 1,240 lbs.
Shell Pet. Corp.'s No. 5 Stratford, 1,094 ft. S, 330 ft. E of NW cor. of Sec. 13.
Pulling screen; T.D. 6,909 ft.
Shell Pet. Corp.'s No. 3 Ardoin, 990 ft. S and 300 ft. E of NW cor. S½ NW Sec. 18-10s-6e.
T.D. 6,670 ft.; I.P. 702 bbls.; 18/64-in. choke; tubing pressure 875 lbs.; csg. pressure 1,050 lbs.
Shell Pet. Corp.'s No. 3 Tuten, 1,159 ft. W and 330 ft. from S of NE cor. SE Sec. 13-9s-6w.
Drlg. sticky shale 5,392 ft.
JENNINGS—ACADIA PARISH
Port City Oil Co.'s No. 14 Jennings Haywood, 150 ft. N and 25 ft. W of No. 13.
T.D. 1,620 ft.; prepare to deepen.
Yount Lee Oil Co.'s No. 14 Housierre-Latrielle, 260 ft. N of No. 13, Sec. 47-9s-2w.
Drlg. sand and shale 5,925 ft.
LAKE BARRE—TERREBONNE PARISH
Texas Co.'s No. 11 L.L.&E., Sec. 26-21s-20e
T.D. 3,693 ft.; sidetracked at 2,668 ft.; Drlg. 2,434 ft. in sidetracked hole.
Texas Co.'s No. 12 L.L.&E.
Drlg. sticky shale 3,625 ft.
LAKE HERMITAGE—PLAQUEMINES PARISH
Humble O. & R. Co.'s No. 2 LaFourche Basin Levee Dist.
Drlg. sand 4,850 ft.
LAKE PELTO—TERREBONNE PARISH
Whitstone O. & G. Co.'s No. 1 Buckley, 300 ft. S and E of NW cor. SW SW Sec. 15-19s-16e.
T.D. 3,053 ft.; tested gas on a D.S. test; prepare to set csg.
LAKE WASHINGTON—PLAQUEMINES PARISH
Humble O. & R. Co.'s No. 23 Cockrell-Moran, 650 ft. N and 21 deg. 30 min. E of No. 2 in Twp. 20s-26e.
Drlg. shale 3,158 ft.
LEESVILLE—LAFOURCHE PARISH
Emerald Pet. Co.'s No. 7 State of Louisiana.
Derrick.
Gulf Prod. Co.'s No. 10 Bernard, 1,833 ft. E, 958 ft. S of NW cor. Sec. 26-21s-22e.
Derrick.
Gulf Prod. Co.'s No. 2 Community, 50 ft. W and 1,300 ft. E of NW cor. Sec. 26-21s-22e.
Derrick.
Gulf Prod. Co.'s No. 8 Bernard, 568 ft. E along S line of 5.08-ac. tract from SW cor. and 446 ft. N at right angles, Sec. 26-21s-22e.
Drlg. sand and shale 4,903 ft.
Emerald Pet. Co.'s No. 8 State of La., 455 ft. N of No. 1.
Drlg. shale 2,786 ft.
Emerald Pet. Co.'s No. 10 State, west bank, 300 ft. S of well No. 1.
Location.
Emerald Pet. Co.'s No. 11 State, east bank, 227 ft. N of well No. 1.
Location.
Emerald Pet. Co.'s No. 12 State, east bank, 250 ft. S of well No. 1.
Location.
Frank L. Hill's No. 1 Bertard, 1,422 ft. N and 803 ft. E of SW cor. Sec. 26-21s-22e.
S.D. 3,670 ft.
Leesville Oil & Gas Co.'s No. 1 Southern Louisiana Canal Navigation Co., 35 ft. W of Bank of Bayou, 15 ft. N of S bank, Sec. 26-21s-22e.
S.D. 4,189 ft.
Texas Co.'s No. 20 L.L.&E., Sec. 27-21s-22e
Drlg. shale 3,727 ft.
LOCKPORT—CALCASIEU PARISH
Magnolia Pet. Co.'s No. 12 Bordages, 966 ft. W and 93 ft. N of SE cor. N½ NE Sec. 8-10s-19w.
S.D. 6,165 ft.
Union Sulphur Co.'s No. 1 Moss (W.O.).
P.B. from 3,360 ft. to 3,194 ft.
Union Sulphur Co.'s No. 1 Farquahar, 200 ft. S and W lines, NE cor. SW SE Sec. 36-12s-10w, 2-ac. tract.
Comp.; I.P. 100 bbls. per day; T.D. 6,715 ft.
PORT BARRE—ST. LANDRY PARISH
Gulf Prod. Co.'s No. 8 Wilson Cochran, 568 ft. E along S line of L. Bernard 5.08-acre tract from SW cor. of Sur., 446 ft. N at right angles to said line, being 400 ft. N of line drawn through No. 1 and No. 3, Sec. 26-22s-12e.
Drlg. gumbo 1,244 ft.
ROANOKE—JEFFERSON DAVIS PARISH
Humble O. & R. Co.'s No. 1 R. C. Jarnegan, 440 ft. S, 440 ft. E of the NW cor. SE Sec. 12-9s-4w.
Location.
Humble O. & R. Co.'s No. 2 Devilbiss, 1,399 ft. W, 466 ft. S of NE cor. Sec. 14-9s-4w.
R.U. to D.D.; T.D. 5,746 ft.
Humble O. & R. Co.'s No. 1-B Devilbiss.
Drlg. plug; T.D. 7,918 ft.
Shell Pet. Corp.'s No. 1 Jarnigan, 330 ft. E, 660 ft. S, NW cor. Sec. 12-9s-4w.
Drlg. shale 8,815 ft.
SORRENTO—ASCENSION PARISH
Union Sulphur Co.'s No. 26 United Land.
Drlg. sandy shale 5,083 ft.
SULPHUR—CALCASIEU PARISH
Union Sulphur Co.'s No. 795 fee.
Washing in 5,530 ft.
Union Sulphur's No. 2 Uldrick, 500 ft. N of No. 1.
Location.
Union Sulphur's No. 803 fee.
Drlg. 810 ft.
Union Sulphur Co.'s No. 802 fee, 908 ft. N, 1,340 ft. E of C of Sec. 29-9s-10w.
Comp.; T.D. 5,306 ft.; I.P. 300 bbls. daily.
Union Sulphur Co.'s No. 2 Kelly, 1,345 ft. S, 198 ft. W of the NE cor. of Sec. 30-9s-10w.
Drlg. rock 5,426 ft.
SWEET LAKE—CAMERON PARISH
Pure Oil Co.'s No. 12 Yount Lee fee, 800 ft. S of No. 11, in line with Nos. 9 and 10, Sec. 12-13-3w.
S.D. 7,439 ft.
VINTON—CALCASIEU PARISH
Marrs McLean's No. 15 F. H. Gray, 342 ft. N and 338 ft. E of SW cor. Sec. 33-10s-12w.
Drlg. rock 1,668 ft.
Vinton Oil Co.'s No. 1 J. G. Gray, 330 ft. from N line and 545 ft. from E line of SE NE Sec. 4-11s-12w.
Drlg. gumbo 3,530 ft.
Wilson Broach's No. 7 Wilson (W.O.), Sec. 33-10s-12w.
Drlg. sand 3,324 ft.
WHITE CASTLE—IBERVILLE PARISH
Shell Pet. Corp.'s No. 9 Wilburn, 300 ft. E of No. 7.
Reaming; T.D. 7,046 ft.
MISCELLANEOUS WILDCATS
TEXAS
ANGELINA COUNTY
Thayer et al's No. 1 Dearmond, J. T. Peavy Sur., 2½ miles SE of Zavalla.
Hard lime 1,915 ft.; T.D.
BRAZORIA COUNTY
Amerada Pet. Corp.'s No. 1 Houston Farm Dev. Co., 1,414 ft. N, 316 ft. W of SE cor. of L. Bachelder Sur.
Drlg. shale 7,490 ft.
Harrison & Abercrombie's No. 1 Bernard River Land, 1,000 ft. out of SE cor. of Lot 23.
Coring sand 8,563 ft.
C.&R.G. Drlg. Co.'s No. 1 Frank Truksa, 200 ft. from S and 1,000 ft. from E lines of 75-ac. tract, Sec. 7, H.T.&B.R.R. Sur.
Drlg. shale 7,303 ft.
Holt et al's No. 1 Griffith, J. B. Bailey Sur
T.D. 4,200 ft.; waiting orders.
McCarthy Oil Co.'s No. 1 National Life Insurance Co., 800 ft. S of N line of Blk. 3 and 466 ft. E of W line of E½ of H. Austin League No. 4.
S.D. 6,536 ft.
Stanolind Oil & Gas Co.'s No. 1 J. W. Surface, 466 ft. N and 400 ft. W of most easterly SE cor. of 75.9-acre tract, A.C.H. &B. Sur., Abst. 462.
Rig up.
Turnbull & Irwin's No. 1 Sutherland & Buck, 330 ft. from N and S lines and 150 ft. from W line of 40-ac. tract, A. Robinson Sur.
Location.
BRAZOS COUNTY
Buck Wallace's No. 1 Broach, 1,000 ft. from S line, 400 ft. from W line of 351-ac. tract in G. W. Singleton Sur.
T.D. 369 ft.; S.D.
CALHOUN COUNTY
Continental Oil Co.'s No. 1 American Nat. Realty Co., C of NE of Sec. 6, Blk. C.
Rotating 7⅞-in. csg. at 6,350 ft.
Steen Drlg. Co.'s No. 1 Stansel, 500 ft. along N line from NW cor., thence 350 ft. at R/A of 371.2-ac. tract, A. E. Parza Sur.
Drlg. shale 5,620 ft.
CHAMBERS COUNTY
Sun Oil Co.'s No. 1 Hamilton 1,400 ft. from N line, 1,400 ft. from W line of survey, T.&N.O. Sur., Sec. 128.
Spudded.
COLORADO COUNTY
Coyle-Concord Oil Co.'s No. 1 Nelson, 1,320 ft. SE of NW cor. of Sec., 2,300 ft. SW at right angles in I.&G.N. Sur.
S.D. 6,194 ft.
FORT BEND COUNTY
W. A. Shafer et al's No. 1 V. B. Bortash, 693 ft. SW of NE line and 1,003 ft. NW of SE line of Sec. 52, H.&T.C. Sur.
S.D. 2,900 ft.
Vice Oil Co.'s No. 1 H. R. Darst, 5,690 ft. N of S line and 685 ft. W of E line of E. Powell Sur.
Drlg. sticky shale 3,300 ft.
Wilks et al's No. 1 Norris, 300 ft. W and 1,353 ft. S of N cor. of 525-ac. tract (5 miles S of Needville).
Rigged up and S.D.
GALVESTON COUNTY
Gillock Pet. Co.'s No. 2 Mace Stewart, 900 ft. N and 150 ft. W of No. 1, Alex Farmer Sur.
T.D. 1,500 ft.; waiting on surface pipe.
H. E. Sedberry, trustee's No. 1 Thomas Shaw (200 acres), 150 ft. NW line, 150 ft. NE line, Lot 66, Sec. 7, Hall & Jones Galveston Island.
S.D. 53 ft.
Humble O. & R. Co.'s No. 1-B Stewart, 450 ft. S of Dickinson Bayou, 460 ft. E of S line of Blk. 16, Beatty Subd., John Sellers Sur.
Drlg. shale 8,065 ft.
Pure Oil Co.'s No. 1 J. W. Shelor (211.1 acres), 2,760 ft. S of Dickinson-San Leon highway and midway E and W lines of lease, B.B.B.&C. Sur.
T.D. 7,837 ft.; P.B. from 7,550 ft. to 7,250 ft.; drlg. shale 7,372 ft.
GRIMES COUNTY
Hubert Holt et al's No. 1 Simon Fuqua, 1,200 ft. N of S line and 400 ft. W of E line of 177-ac. lease and survey, Moses Evans Sur.
Drlg. 898 ft.
Dr. Marshall et al's No. 1-B Todd, 300 ft. from E line and 175 ft. from N line of 150-ac. tract in extreme NW cor. of county (25 ft. N of No. 1).
S.D. 1,305 ft.
W. D. Roan et al's No. 1 D. C. Kelly, 1,440 ft. from N line and 168 ft. from E line of U. Sanders Sur., near Carlos.
T.D. 2,360 ft.
J. H. Woodward et al's No. 1 O. A. Hamilton, center of Hamilton 95.5-ac. tract of Richards in the O. Hill Sur.
S.D. 3,290 ft.
HARDIN COUNTY
Kirby Pet. Co.'s No. 1 Southwest Settlement & Development Co., 1,450 ft. W of E line and 330 ft. S of N line of Sec. 226, H.&T. C. Sur.
Cmtd. surface csg. at 1,107 ft.
HARRIS COUNTY
American Liberty Oil Co.'s No. 1 Sweeney, Sec. 17, W.C.R.R. Sur.
Drlg. shale 5,725 ft.
C. B. Bunte, Inc.'s No. 1 Laura Lackner, 6,400 ft. from E line, 194 ft. from S line of Henry Reinerman Sur., near NW city limits of Houston.
Drlg. sticky shale and lime 5,763 ft.
C. C. Foster and others' No. 1 H. K. Johnson, 2,000 ft. from S line and center of E and W lines of G.C.&S.F. Sur.
Drilled 25 ft. and S.D.
Farrell Bros. Co.'s No. 1 Brooks Est., 7,400 ft. S and W of NE cor. of R. & R. Vince Sur.
Cmtd. csg. 412 ft.
W. U. Paul's No. 1 E. M. House, 1,200 ft. N and 1,000 ft. E of NE cor. of E. Bonson Sur. in M. Magruder Sur.
S.D. 4,122 ft.
JEFFERSON COUNTY
Magnolia Pet. Co.'s No. 1 E. Herbert Trust, 990 ft. N, 330 ft. E of SW cor. of P. E. Bell Sur. No. 2.
Drlg. shale 3,480 ft.
Sun Oil Co.'s No. 1 H. Long, 1,500 ft. N line, 990 ft. E line of lease.
Drlg. sand and shale 7,420 ft.
LIBERTY COUNTY
R. M. Bruner et al's No. 1 N. Bell, 150 ft. from N line and 150 ft. from W line of Bell's 187-ac. tract, H.&T.B. Sur. No. 4.
Rigging up.
Extension Oil Co.'s No. 1 J. A. Lovett, 300 ft. from E and 600 ft. from S line of lease, P. P. Deevers Sur.
S.D. 3,518 ft.
Liberty-Independent Oil Co.'s No. 1 J. M. Neal, 3,550 varas from E line and 500 varas from N line of Samuel Strong Sur.
No report.
A. L. Maxwell's No. 1 M. D. Hinciiff, 300 ft. from E line and 1,000 ft. from N line of H.&T.C. Sur. No. 150.
Location.
Thomas et al's No. 1-A Eicke, 660 ft. from W line and 2,350 ft. from S line of tract in Green Sur.
T.D. 5,047 ft.; 6⅝-in. csg. at 5,029 ft.
Turnbull and Irwin's No. 1 Lynott and Buffum, 466 ft. S and E of NW cor. of SE 100 acres of W 400 acres of 854-ac. tract, James Robeson Sur.
Drlg. shale 6,490 ft.
MATAGORDA COUNTY
Continental Oil Co.'s No. 1 Robbins, J. C. Franz Sur.
T.D. 6,995 ft.; getting ready to sidetrack at 6,800 ft.
Dr. Griffith's No. 1 fee, 3,000 ft. from E line and 3,000 ft. from W line of Wm. B. Bell Sur.
Rig up and S.D.
MONTGOMERY COUNTY
Brown & Wheeler et al's No. 1 Jones, 660 ft. out of NW cor. of S 175 acres of 350-ac. tract.
Location.
ORANGE COUNTY
Blue Line Oil Co.'s No. 1 Godwin, Richard Ballew Sur., 300 ft. from E line and 150 ft. from NE line of Godwin 20-ac. tract.
S.D. 2,703 ft.
Texas Louisiana Oil Co.'s No. 1 Starks, 2,460 ft. N of NW cor. M. Delano Sur. 65, 16-500 ft. E at R/A.
Abd. 5,055 ft.
POLK COUNTY
Howard Dailey et al's No. 1 Z. B. Knox, 1,450 ft. W and 1,920 ft. S of NE cor. of P. Chairs Sur., 1½ mile NE of Corrigan.
S.D. 60 ft.
J. F. Anderson's No. 1 E. I. Duke (O.W.D. D.), 400 ft. from E and 350 ft. from S of SW cor. of P. Michelick 50-ac. lease, Abst. 50, P. J. Mineral Sur.
Waiting on a new mud pump; T. D. 5,804 ft.
Dick Schwab's No. 1 Lynch, 330 ft. out of NW cor. of 200-ac. tract in the George Jameson Sur.
Location.

REFUGIO COUNTY

Cecil Hagen et al's No. 1 Edith Clarkson, 1,736 ft. from N line, 3,820 ft. from E line of J. Coughlin Sur. Location.

Dale Sneed's No. 1 Peck, 366 ft. N and W out of NW and SW of Bonnie View Subd. Prepare to D.D.

Quintana Oil Co.'s No. 1-B O'Connor, 139 ft. E line and 2,525 ft. S line of B.B.B.&C. Sur., Abst. 96.
T.D. 6,300 ft.; P.B. to 5,800 ft.

VICTORIA COUNTY

Devonian Oil Co.'s No. 1 J. M. Fagan, Peter Teal League, Abst. 112, 9,000 ft. from N line, 466 ft. W of E line.
Rig up.

Texas Co.'s No. 1 E. B. Potthast, N 50 deg. E, 350 ft. S, 35 deg E, 850 ft. from W cor. of lease, T.&N.O.R.R. Sur., Sec. 11.
Rig up.

WALKER COUNTY

E. P. Kilgore et al's No. 1 Lamkin, 320 ft. from S line and 320 ft. from E line of Lamkin 1,000-acre tract in J. J. Holcomb Sur.
Rig up.

WHARTON COUNTY

Texas Gulf Prod. Co.'s No. 1 Kresta, 440 ft. N and E from SW cor. of tract in Sec. 54, W. B. Ivey Sur.
Abd. 6,908 ft.

SOUTH LOUISIANA
ALLEN PARISH

Humble O. & R. Co.'s No. 1 Industrial Lumber Co., 1,320 ft. W line and 3,440 ft. S line Sec. 21-3s-5w.
Drlg. shale 7,685 ft.

ASCENSION PARISH

Humble O. & R. Co.'s No. 2 S. Gumbel & Co., 500 ft. southwesterly from No. 1, 275 ft. easterly from road and approx. 475 ft. N of S line of tract, Sec. 33-10s-2e.
Derrick.

BEAUREGARD PARISH

Gulf Ref. Co.'s No. 1 Latcher Moore, 660 ft. from S line, 760 ft. from E line, NE Sec. 25-6s-12w.
Drlg. sand 6,350 ft.

Richardson & Martin's No. 1 Southwest Lbr. Co., SW Sec. 6-5s-12w.
Location.

CALCASIEU PARISH

Pohs' No. 1 O. H. Castle, 330 ft. S and 330 ft. W of C Sec. 13-9s-8w.
Location.

Humble O. & R. Co.'s No. 1-B Industrial Lbr. Co., 466 ft. N, 1,399 ft. W of the SE cor. Sec. 27-8s-12w.
Drlg. shale 1,303 ft.

Union Sulphur Co.'s No. 2 Barbe, 379 ft. S and 350 ft. W of NE cor. of SE of Sec. 11-9s-3w.
Flowing 200 bbls. per day; 16% S.W.

Union Sulphur Oil Co.'s No. 1 State Land, 1,940 ft. S, 2,513 ft. E of NW cor. Sec. 12-9s-8w.
Drlg. sandy shale 5,096 ft.

Wheeler Oil Co.'s No. 1 Gabbert, 1,322 ft. E and 548 ft. N of SW cor. of Sec. 28-9s-7w.
Cmtd. csg. 1,420 ft.

EAST FELICIANA PARISH

Thompson Creek Oil Co.'s No. 1 Fannie Noland, 2,600 ft. E and 1,580 ft. N of SW cor. Sec. 70.
Drlg. shale 900 ft.

EVANGELINE PARISH

Humble O. & R. Co.'s No. 1 Haas, 1,250 ft. SE of Bayou Nezpique, 466 ft. NE of SW line of Sec. 22-4s-1w.
Drlg. sand 214 ft.

CAMERON PARISH

Texas Co.'s No. 10-A State, 16,855 ft. W and 3,270 ft. N of NE cor. Sec. 1-14-9w in Twp. 13s-9w.
T.D. 6,270 ft.; sidetracked 4,109 ft.; drlg. shale 5,232 ft.

Texas Co.'s No. 1 Jessen, 1,170 ft. E and 550 ft. N of C Sec. 24-14s-10w.
Location.

LAFOURCHE PARISH

Barnadall Oil Co.'s No. 3 Harang Plantation.
Drlg. 5,321 ft. in sidetracked hole.

R. L. Gay, trustee's No. 1 Godchaux, 3,930 ft. N and 1,746 ft. E in common cor. of Lots 34 and 36, Twp. 15s-19e.
S.D. 6,226 ft.

Southern Sulphur Corp.'s No. 1 D. L. Lagraize, 800 ft. E of NW cor. of Lot 7, thence 250 ft. S of Sec. 26-21s-22e.
Spudded and S.D.

PLAQUEMINES PARISH

Texas Co.'s No. 12 State-Garden Island Bay, Sec. 107-23s-32e.
Set 21½-in. csg. at 102 ft.; drlg. shale 1,170 ft.

Venice Corp.'s No. 1 Burras
Set 10-in. csg. at 1,523 ft.

RAPIDES PARISH

J. B. Evers' No. 1 G. Wettermark, 540 ft. S and 520 ft. E, NW cor. NE SW Sec. 35-6n-2e.
Location.

C. D. Loe's No. 1 Barrett, 330 ft. NW of SE line and 330 ft. NE of SW line of Sec. 40-5n-1w.
Rig up and S.D.

ST. BERNARD PARISH

Danciger's No. 1 Battles, 526 ft. N, 2,198 ft. W of SE cor. Sec. 135-14s-14e.
Drlg. shale 5,071 ft.

ST. LANDRY PARISH

Bailey Gaunce's No. 1 Lewis, 300 ft. N and E of SW cor. of NW of NE of Sec. 29-5s-6e (workover).
S.D. 5,043 ft.

H. J. Weir's No. 1 Declouet, Sec. 108-9s-5e, near Lafayette Parish line and 3 miles N of Anse La Bute Field.
Drlg. gumbo 900 ft.

ST. MARTIN PARISH

Texas Co.'s No. 6 St. Martin Land Co., 660 ft. S and 500 ft. W of NE cor. SE Sec. 17-8s-7.
Drlg. sandy shale 9,205 ft.

VERMILLION PARISH

Moore Bros.' No. 1 Brussard, 350 ft. S of N line, 250 ft. E of W line, NE cor. Sec. 32-11s-3e.
T.D. 4,056 ft.; fishing.

VERNON PARISH

Robert R. Williams, Sec. 8-1n-9w.
Rig up and S.D.

La.-Ark. Wildcats

(Continued from Page 60)

NE Sec. 25-11-13.
Drlg. 300 ft.

Bayou Pierre Oil Co.'s No. 1 B. Y. Wemple, C SE NE SW Sec. 14-12-11.
Reaming 2,602 ft.

Century O. & Drlg. Co.'s No. 1 Morton, 300 ft. N and E SW cor. SE NE Sec. 27-11-14.
Drlg. 1,715 ft.

Jack Clarke's No. 1 Moore, 330 ft. S and W NE cor. NW Sec. 1-13-15.
S.D. 1,675 ft.

W. T. Coleman's No. 1 Rambin Est., 700 ft. S and E, NW cor. SW SE Sec. 13-12-13.
S.D. 50 ft.

Dempsey & Mansiel's No. 1 Thigpen, 375 ft. S, 330 ft. W, NE cor. SW NE Sec. 33-13-13.
Set 8-in. 1,660 ft.; T.D. 1,730 ft.

DeSoto Pet. Co.'s No. 1 B. Y. Wemple, C S½ SE NE SW Sec. 14-12-11.
S.D.; rig repair at 1,702 ft.

E. L. Foster's No. 1 Youngblood, Sec. 9-11-14.
R.U. to deepen 1,502 ft.

Hester et al's No. 1 Alston, 330 ft. S and W of center of Sec. 11-11-16.
Arranging set 6-in. 2,000 ft.; T.D. 2,100 ft.

George Le Grande's No. 1 Vance, 180 ft. N and W SE cor. SW Sec. 34-12-16.
Drlg. 1,800 ft.

W. K. Williams' No. 1 Wemple, 600 ft. N, 330 ft. W, SE cor. Sec. 15-12-11.
W.O.S.R. 2,734 ft.

EAST CARROLL PARISH

Holcomb & Thomason's No. 1 Milliken, 198 ft. N, 1,240 ft. E of C Sec. 22-23-12e.
Drlg. 2,030 ft.

LA SALLE PARISH

A. D. Hudson et al's No. 1 Urania, 600 ft. W, 150 ft. N, SE cor. NE SW Sec. 7-10-2e.
W.O.S.R. 1,525 ft.

F. A. Trichello's No. 1 Urania, Sec. 3-9-1e.
Rigging up.

MOREHOUSE PARISH

Southern Carbon Co.'s No. 65 fee, 2,030 ft. S, 600 ft. E NW cor. Sec. 14-20-4e.
Drlg. 1,880 ft.

Zeiger & Bacon's No. 1 Crossett, 400 ft. N, 300 ft. W, SE cor. Sec. 41-23-6e.
T.A. 3,111 ft.

NATCHITOCHES PARISH

Benedum & Trees' No. 1 Carrier Est., 300 ft. N and W, SE cor. Sec. 6-8-7.
P.B. from 3,127 ft. to 2,000 ft.

Clyde Crichton's No. 1 Friedman Est., 406 ft. N, 428 ft. E, SW cor. Sec. 52-7-6.
S.D. for wtr., 1,088 ft.

Jack Lent's No. 1 Brown Lbr. Co., 400 ft. S, 300 ft. E, NW cor. NE SW Sec. 27-9-13.
Blowout; est. 100,000 ft. of gas and S.W. at 3,002 ft.

Missouri Drlg. Co.'s No. 1 Brown Lbr. Co., 400 ft. N, 330 ft. W, SE cor. Sec. 5-10-10.
S.D. 1,033 ft.

Roy A. Raines et al's No. 1 Raines est., 330 ft. N and E, SW cor. Sec. 8-9-10.
S.D. for water 2,606 ft.

OUACHITA PARISH

Maury Drlg. Co.'s No. 4 Frierson, 660 ft. S and W, NE cor. Sec. 30-19-4e.
Drlg. 2,174 ft.

United Public Service Co.'s No. 2 fee, 660 ft. S and W, NE cor. Sec. 26-19-3e.
Set 7-in. at 2,147 ft.

RAPIDES PARISH

Evars & Collingsworth's No. 1 Hickman, 330 ft. S and E, NW cor. Sec. 40-4-1e.
Dry and abd. 2,130 ft.

C. D. Loe, trustee's No. 1 Baird Est., SE cor. Sec. 40-5n-1w.
Rigging up.

RED RIVER PARISH

Louis L. Glass' No. 1 Dickson, 400 ft. S and W, NE cor. SE Sec. 32-12-8.
S.D. 1,030 ft.

Circle W and Windsor Oil Co.'s No. 1 Jenkins Est., 660 ft. E and E, NE cor. NW Sec. 4-12-11.
Set 6-in. 2,605 ft.

C. M. Cope et al's No. 1 Thomas, 330 ft. S and E, C Sec. 34-13-3.
Tested dry 1,630 ft.; drlg. 1,920 ft.

SABINE PARISH

H. J. Brothers et al's No. 1 Edwards, 300 ft. S. and W. NE cor. SW NW Sec. 29-9-13.
Set 6-in. 1,552 ft.

R. B. Campbell et al's No. 1 Cook Land Co., 150 ft. N, 300 ft. W, SE cor. NW NW Sec. 35-10-12.
Tested dry; S.O. 1,935 ft.

Erle P. Halliburton's No. 3 Burkett, 330 ft. N and W, SE cor. SW SE Sec. 9-9-13.
Bailing to test 2,010 ft.

Halliburton & Meadows' No. 1 Jackson, 330 ft. S and E, NW cor. NE NE Sec. 15-9-13.
Dry and abd. 1,650 ft.; old T.D. 1,998 ft.

Helena O. & G. Co.'s No. 2 Heard, 330 ft. S and E, NW cor. NW NE Sec. 16-9-13.
Rigging up.

Helena Oil & Gas Co.'s No. 1-B Graham, 330 ft. S and W NE cor. NE NW Sec. 20-9-13.
Pumping S.W. 2,000 ft.

L. D. Higgins' No. 2 Burkett, 330 ft. S and E, NW cor. NE NE Sec. 16-9-13.
Used acid 2,035 ft.

Lawson-Leavell's No. 1 Whitney Corp., 330 ft. N and E, SW cor. NE SW Sec. 5-9-13.
Set 12-in. 80 ft.; drlg. 250 ft.

Zan Lloyd's No. 1 Henderson, 330 ft. N and W, C Sec. 29-9-13.
W.O.S.R. 2,031 ft.

Dr. O. B. Hicks' No. 1 Neal, SE SW SE Sec. 18-9-13.
Set 10-in. 40 ft.

TENSAS PARISH

Schumacher, tr.'s No. 1 Curry, Sec. 39-11-12e.
Arranging to deepen 3,750 ft.

UNION PARISH

Carbons Consolidated's No. 1 Lankford, 431 ft. N, 382 ft. E, SW cor. SE SE Sec. 3-21-3e.
Arranging to set 6-in. 2,100 ft.

WINN PARISH

Red River Ref. Co.'s No. 3 Tremont Lbr. Co., 320 ft. N, 521 ft. W, SE cor. Sec. 26-11-1w.
Coring 1,670 ft.

ARKANSAS
ARKANSAS COUNTY

Grand Prairie Realty Co.'s No. 1 Fischer, 200 ft. S and E, NW cor. NE NW Sec. 6-6s-4w.
Rigging up.

COLUMBIA COUNTY

Dudney & Woodward's No. 1 Pearce, 330 ft. S and W, NE cor. NW Sec. 7-17-20.
Fishing 1,290 ft.

HEMPSTEAD COUNTY

Ark. Drlg. Co.'s No. 1 Jones, 1,000 ft. S, 600 ft. W, NE SE Sec. 11-14-24.
Arranging to resume drlg. 2,808 ft.

B. A. Austin's No. 1 McWilliams, 300 ft. N and W of SE cor. NW SW Sec. 19-13-23.
S.D. for wtr. 1,680 ft.

A. H. Bagnelle's No. 1 Trattner & Rhinehart, Sec. 2-13-26.
S.D. 1,992 ft.

F. W. Martin & Co.'s No. 1 Lafferty, 500 ft. N and W SE cor. NW Sec. 17-14-24.
Drlg. 3,000 ft.

LAFAYETTE COUNTY

Benedum & Trees' No. 2 Bodcaw, C SE SE NE Sec. 19-16-23.
Drlg. 3,550 ft.

Douglas Lawn's No. 1 Camp, 330 ft. S and W, NE cor. SW SE Sec. 14-15-23.
S.D. 2,910 ft.

W. H. Harvey's No. 2 Allen, Sec. 18-19-24.
Rigging up.

MILLER COUNTY

Fitzwater et al's No. 1 Norson, SW cor. SE SW Sec. 20-15-27.
S.D. 3,177 ft.

Ark. Oil, Gas & Ref. Co.'s No. 1 Beck, SW cor. NW SW Sec. 34-15-26.
1,200 ft. oil in hole at 2,920 ft.

King Oil Corp.'s No. 1 C. H. Schroder, 200 ft. N, 330 ft. E, SW cor. SW NE Sec. 24-14-28.
Coring 2,684 ft.

Magnolia Pet. Co.'s No. 5 Olivet, Sec. 3-16-26.
Set 7-in. 2,930 ft.

Lee Timberlake's No. 1 Frost Est., 330 ft. N and E, SW cor. SW SE Sec. 27-15-26.
Set 10-in. 200 ft.

OUACHITA COUNTY

F. A. Book et al's No. 1 Arnold, Sec. 24-15-16.
S.D. 2,032 ft.

T. J. Gaughan's No. 1 Bragg, 330 ft. N and E, SW cor. NE SE.
Set 10-in. 104 ft.

J. D. Reynolds' No. 1 Guttry, 452 ft. S, 150 ft. W, NE cor. NE SW Sec. 21-15-19.
Testing 2,178 ft.

Sam M. Richardson & Co., Inc.'s No. 9 J. Goodwin, C NE SW Sec. 32-15-15.
W.O.S.R. 2,038 ft.

UNION COUNTY

Mrs. R. K. Jones et al's No. 1 J. Davis, 330 ft. N and W, SE cor. NW NW Sec. 28-16-14.
Fishing for csg. 2,764 ft.

Lion Oil Ref. Co.'s No. 10-A Flenniken, 200 ft. N, 630 ft. E, C Sec. 10-16-15.
Drlg. with cable tools 2,400 ft.

McCreslenn Oil Co.'s No. 1 Union Saw Mill Co., 330 ft. N and W, SE cor. NE NW Sec. 3-18-13.
P.B. from 3,577 ft.

Reuter Oil Co., Inc.'s No. 1 J. L. Kinard, 330 ft. S and E, NW cor. SE NW Sec. 32-18-14.
Testing 2,189 ft.

Short & Hayes' No. 1 Taylor, 450 ft. E, 330 ft. S, NW cor. NW SE Sec. 10-17-14.
Drlg. 2,460 ft.

Tubal Pet. Co.'s No. 1 Gaddy, 340 ft. N and E, SW cor. SE NW Sec. 14-17-14.
S.D.; W.O. 3,416 ft.

MISSISSIPPI
AMITE COUNTY

Mineral Resources, Inc.'s No. 1 Anderson, C NE NW Sec. 14-3n-3e.
S.D. 550 ft.

BOLIVER COUNTY

White & Jones' No. 1 Ballou, SE SE NW Sec. 17-24n-7w.
Rigging up.

GREENE COUNTY

United Gas Pub. Service Co.'s No. 1 Greene County School Land, W½ W½ Sec. 16-1n-5w.
Set 16-in. 260 ft.; drlg. 1,805 ft.

HARRISON COUNTY

Big Ridge Oil Co.'s No. 1 Hinzin, NE Sec. 13-7s-10w.
Set 8-in. 60 ft.; drlg. 550 ft.

JONES COUNTY

Snow-Black Pet. Co.'s No. 2 Watson, 520 ft. W, 200 ft. S, C Sec. 24-7n-13w.
T.A. 3,900 ft.

LAUDERDALE COUNTY

Bob Dalton's No. 1 Bounds, Sec. 24-7n-15e.
Set 10-in. 560 ft.; S.D.; W.O.

MONROE COUNTY

P. J. McAlpine's No. 1 Frank Rye, Sec. 15-15s-17w.
Drlg. 1,800 ft.

P. J. McAlpine's No. 1 Crook, 1,090 ft. S, 90 ft. W, NE cor. Sec. 15-13s-18w.
C.O. hole; T.D. 720 ft.

SIMPSON COUNTY

Berry Corp.'s No. 2 R. T. Berry, Sec. 33-2n-4e.
Set 7-in. 2,048 ft.

WALTHALL COUNTY

Mutual O. & G. Co.'s No. 1 Boyd, SW cor. SW SE Sec. 24-2n-9e.
Partly rigged up and S.D.

WARREN COUNTY

Orbet Drlg. Co.'s No. 1 R. L. Parker, 300 ft. E, CWL Sec. 14-14-1e.
Dry and abd. 3,252 ft.

WASHINGTON COUNTY

Perkins & Dees' No. 1 Lee, 1,500 ft. E, 500 ft. N, SW cor. Sec. 33-15n-8w.
Set 10-in. 300 ft. and S.D. (corrected).

WINSTON COUNTY

Jack Vale et al's No. 1 Moody, 713 ft. N, 667 ft. E, SW cor. NW SW Sec. 3-13n-14e.
S.D. 20 ft.

La.-Ark. Proven Fields

NORTH LOUISIANA
CADDO—BLANCHARD

W. T. Boyd's No. 2 Mitchell, 1,975 ft. N. 1,600 ft. W, SE cor. Sec. 6-18-16.
Dry and abd. 999 ft.

C. W. Brown et al's No. 1 Sharf, 1,650 ft. S, 350 ft. W, NE cor. Sec. 10-18-16.
Set 8-in. 20 ft.

Louana O. & G. Co.'s No. 4 Hammock, 660 ft. N, 2,830 ft. W, SE cor. Sec. 32-19-16.
Dry and abd. 997 ft.

M. Segall et al's No. 1 Sharpe, 330 ft. S and E, NW cor. Sec. 11-18-16.
Comp., est. 1,000,000 ft. of gas 928 ft.

M. Segal's No. 2 Sharf, 330 ft. S and W. NE cor. NW NW Sec. 11-18-16.
Rigging up.

CADDO—HOSSTON

Bayou State O. & G. Co.'s No. 1 Connell, 1,900 ft. N, 1,198 ft. E, SW cor. Sec. 15-21-14.
Abd.; will not pump at 964 ft.

C. G. Gibbon's No. 1 Burglass, 572 ft. N. 660 ft. W, SE cor. NE NE.
Comp., est. 3,000,000 ft. gas, 2,114 ft.

Shoreline Oil Corp.'s No. 44 Crystal, 220 ft S and E of C Sec. 13-21-16.
Rigging up.

Shoreline Oil Corp.'s No. 3 Harrell, 350 ft S, 220 ft. E, NW cor. SE SW Sec. 2-21-16
W.O.S.R. 1,032 ft.

CADDO—RODESSA

United Gas Pub. Serv. Co.'s No. 1 Christian, 724 ft. N, 1,382 ft. W SE cor. Sec. 33-23-16
Comp. 78,000,000 ft. gas, 5,853 ft.

SABINE PARISH—ZWOLLE

Alexander & Cane's No. 1 Fogman, SE cor N½ SW NE Sec. 18-7-11.
Arranging set csg. 2,353 ft.

Ivan A. Allen's No. 1 La. Long Leaf, 330 ft. N and W, SE cor. NW SE Sec. 12-7-11
S.D. for wtr. 2,120 ft.

Crichton & Co.'s No. 1 Williams, 660 ft. N and E, SW cor. SW SE Sec. 6-7-11.
Set 6-in. 2,345 ft.

Dyer et al's No. 1 McCollister, 330 ft. S and E, NW cor. SW NE Sec. 24-7-12.
S.D. 1,100 ft.

Foster & Hartman's No. 1 Bowman-Hicks, 330 ft. S and E, NW cor. NE Sec. 10-7-13
S.D.; W.O. 2,696 ft.

E. D. Holcomb's No. 1 Porter, 330 ft. S, 330 ft. W, NE cor. SE Sec. 7-7-11.
Pulling liner 2,580 ft.

H. C. Maulding's No. 1 Davis, 350 ft. N and W, SE cor. NE NE Sec. 2-7-11.
Rigging up.

H. C. Maulding's No. 2 DeLatin, 330 ft. S and E, NW cor. NE SE Sec. 3-7-11.
S.D. 2,250 ft.

Pelican Nat. Gas Co.'s No. 35 La. Long Leaf, 330 ft. S and E, NW cor. NW NE Sec. 9-7-11.
Comp. pumping 175 bbls. at 2,649 ft.

Pelican Nat. Gas Co.'s No. 36 La. Long Leaf, 1,320 ft. N, 2,540 ft. E, SW cor. Sec. 9-7-11.
Set 6-in. 2,396 ft.; drlg. 2,496 ft.

Pelican Nat. Gas Co.'s No. 14 Sabine Lbr Co., 330 ft. N and W, SE cor. NE SW Sec. 11-7-12.
Dry and abd. 2,642 ft.

K. C. Peterson et al's No. 1 Bowman-Hicks, 330 ft. S and E, NW cor. SW NW Sec. 2-7-9.
Rigging up.

Texas Co.'s No. 1 H. B. Wilson, 320 ft. S and W NE cor. SE SE Sec. 31-8-11.
Set 10-in. 63 ft.; drlg. 2,063 ft.

Tex.-La.-Ark. Oil Co.'s No. 1 Pickering Lbr Co., Sec. 3-3-12.
S.D. 2,210 ft.

EAST TEXAS (BORDER COUNTIES)
CASS COUNTY

Eastern Texas Prod. Co.'s No. 1 Baker, Jesse Walling Sur.
Dry and abd. 4,259 ft.

R. K. Kamon et al's No. 1 Savage, Mary Patterson Sur.
S.D. 4,016 ft.

HARRISON COUNTY

R. C. Payne et al's No. 1 Lowery, E. D. Spain Sur.
P.B. to 3,524 ft.

PANOLA COUNTY

R. H. Davis' No. 1 Wooten Est., Winnie Mann Sur.
S.D. 2,092 ft.

Givens & Holloway's No. 1 Wooten est., Winnie Mann Sur.
S.D. 2,153 ft.

R. W. Price's No. 1 Crawford, J. A. Williams Sur.
Rigged up and S.D.

Fred Stovall Drlg. Co.'s No. 1 H. B. Ivey, P. Martin H.R.S.
S.D. for csg. 1,980 ft.

SHELBY COUNTY

Bush Oil Int.'s No. 1 Windham, W. M. Blackburn Sur.
Abd. 3,366 ft.

Cliff Stovall's No. 1 Pickering Lbr. Co., C. H. Patterson Sur.
S.D. 690 ft.

Turner & Neil's No. 1 Pickering Lbr. Co., P. W. Harvey Sur.
S.D. 250 ft.

ALABAMA
HOUSTON COUNTY

Rice O. & G. Co.'s No. 1 Oakley est., SE cor. NW SW Sec. 9-3n-29e.
S.D. 2,410 ft.

LAMAR COUNTY

DeSoto O. & G. Corp.'s No. 1 Gardner, Sec. 22-15s-16w.
S.D. 4,182 ft.

Important Completions in Southeast New Mexico; Good Producer in Big Horn County, Wyoming

By TOLBERT R. INGRAM
Staff Correspondent, Rocky Mountain Area

DENVER, Colo., Oct. 29.—Potentials and allowables for Lea County, New Mexico, pools for last half of October showed only minor changes. Several completions, some of them of more than ordinary importance, were reported in the southeastern area. Texas Co.'s No. 1 Ogg, midway between the Cooper and Jal Pools, connecting the two fields, gauged 565 bbls. in 24 hours. Ohio Oil Co.'s No. 2 State-McDonald, midway between the Eunice and Cooper Pools, was completed as a gas well, gauging 36,000,000. Phillips Petroleum Co. had two completions in the Cooper Pool, the best making 236 bbls. an hour. Three new locations were reported in the Cooper Pool and one in the Eunice Field. Humble Oil & Refining Co.'s No. 1 Coats gauged 38,000,000 feet of gas after fire was extinguished. Other completions included one for Repollo Oil Co. in the Jal Pool, one for Shell Petroleum Corp. in the Hobbs Pool, and three in Eddy County.

Colorado reported the completion of a 12,000,000-foot gas well on the Hiawatha Dome in Moffat County by Texas Co.

In Wyoming, Ohio Oil Co. is completing a good well on the Byron Dome in Big Horn County.

The Cut Bank Field in Montana had five completions, one a dry hole, and one new location. Best well was Santa Rita Oil & Gas Co.'s No. 4 Cardwell, which swabbed 312 bbls. in 18 hours. Best completion in the Kevin-Sunburst Field in several years was reported in A. Beardsley's No. 3 Swears which made 165 bbls. natural. Two small gas wells were completed in Phillips County.

In Utah, Mountain Fuel Supply Co. is killing a 12,000,000-foot gasser in Daggett County, to go deeper, and drilling activity is being renewed in the Virgin Field in Washington County.

NEW MEXICO

The potential for the Hobbs Pool as of October 16 was placed at 2,085,319 bbls. daily, an increase of 7,344 bbls. daily compared with October 1. The number of 40-acre units on production was 199, an increase of two. The number of water units was 30, an increase of one. The allowable for the last half of October is 32,370 bbls. daily against 32,986 bbls. for the first half. This production is distributed as follows: Shell Pipe Line Co., 16,221; Humble Oil & Refining Co., 10,033; Atlantic Pipe Line Co., 4,467; Texas Co., 1,572; Walker Oil Co., 77.

The top allowable per day per well for the Jal, Cooper-Lynn, Eunice and Lea Pools was placed at 163 bbls. daily compared with 167 bbls. daily for the first half of the month. The number of units of 40 acres each on production and daily allowable by pools is as follows:

	Units	Outlet
Jal	33	3,528
Cooper-Lynn	15	1,891
Eunice	23	3,984
Lea	11	1,548

The auction sale of leases on state land at Santa Fe on October 10 resulted in sales of 15 tracts for aggregate bonuses of $33,303.58. Five tracts received no bids. The best sale was Tract 9 for 80 acres in N half SW Section 16-17-32, Maljamar area in Lea County, bid in by Phillips Petroleum Co. for $1,260 bonus, or $15.75 per acre. Twelve tracts were sold at the September sale for $15,197.

Cooper Area

Three completions and four new locations were reported in the Cooper Pool. The most important was Texas Co.'s No. 1 Ogg, C SW NE Section 35-24-36, midway between producers in the Cooper and Jal Pools, which apparently proves 1½ miles north and the same distance south and connects the two areas. It flowed 565 bbls. of oil with 1,750,000 feet of gas the first 24 hours at a total depth of 3,523 feet. The pay was found at 3,398-3,523 feet and the 7-inch was cemented at 3,399 feet.

Some idea of the area which offers good drilling prospects when conditions warrant development may be gained by measuring the distance between outpost wells in the two fields. The most southerly well in the Jal Pool is Texas Co.'s No. 1 Rhoades, SE NE NW Section 22-26-37, completed in 1927 for 120 bbls. of oil and 22,000,000 feet of gas. It is still producing 40 bbls. a day. The distance from this well to General Crude Oil Co.'s No. 1-C State, SW SE SW Section 16-23-36, is 20 miles. Between these extremes there are 33 producing oil wells in the Jal Pool and 15 in the Cooper Pool.

The other two completions in the Cooper Pool were Phillips Petroleum Co.'s No. 5 Woolworth, C NE NE Section 27-24-36, and its No. 8 Woolworth, C SW SE Section 22-24-36. No. 5 Woolworth averaged 235 bbls. an hour on a four-hour test, with 1,400,000 feet of gas, at a total depth of 3,504 feet. The oil was found at 3,488-3,504 feet and the 2½-inch tubing was run to 3,490 feet. No. 8 Woolworth is an outside well on the west, adding one unit to the proven area. It has not been officially gauged, but on a drill-stem test it made 30 bbls. an hour with 1,000,000 feet of gas at 3,503 feet, total depth. The pay was at 3,483-3,503 feet. The 7-inch was cemented at 3,485 feet with 400 sacks and it is waiting to drill out and test.

Three of the new locations were around Texas Co.'s No. 1 Ogg. Simms Petroleum Co. spotted No. 1 Woolworth, C SE NE Section 35-24-36, an east offset. Texas Co.'s No. 1 Everett, C SE NW Section 35, a west offset, has cellar and pits completed. Amerada Petroleum Corp. has spotted No. 1 Everett in the NW of Section 35. The other location is Simms Oil Co.'s No. 1 Coats, C SW NE Section 10-24-36, a south offset to Humble's No. 1 Coats, the big gas well reported on fire last week.

Humble Oil & Refining Co.'s No. 1 Coats, C NW NE Section 10-24-36, which furnished southeastern New Mexico its most spectacular fire, is rebuilding derrick after extinguishing the flames. It gauged 38,000,000 feet a day. Total depth is 3,355 feet.

Gypsy Oil Co.'s No. 1 Cooper, C SW NE Section 23-24-36, is drilling at 3,315 feet in lime, and Continental Oil Co.'s No. 1 Gates, C NE NW Section 23-24-36, is bottomed in salt at 1,690 feet and preparing to run the 9⅝-inch. Stanolind Oil & Gas Co.'s No. 2-A Meyers, C NE NE Section 22-24-36, is drilling at 1,447 feet in salt, and Empire Gas & Fuel Co.'s No. 1 Everett, C NE SW Section 35-24-36, is moving in materials.

Jal Area

There was one completion in the Jal Pool, Repollo Oil Co.'s No. 1 Hanagan, SE cor. SW Section 12-25-36, which flowed 549 bbls. in 18 hours, with 16,000,000 feet of gas a day, at a total depth of 3,322 feet after treating with 1,000 gallons of acid. The pay was at 3,300-22 feet and the 7-inch was cemented at 3,275 feet. Same company's No. 1 Gloyd, SW cor. SE Section 12-25-36, an east offset to the completion, had some gas at 2,949-62 feet and is drilling at 2,985 feet in lime.

E. B. Guess' No. 1-B Justis, SW NW NW Section 20-25-37, is drilling at 75 feet in red rock, and his No. 1 Conditt, NW NE SE Section 11-25-36, is shut down at 517 feet. Texas Co.'s No. 2-B Shepard, NW NE SE Section 6-26-37, is waiting at 1,600 feet after cementing 10-inch at 1,500 feet with 860 sacks, and Continental Oil Co.'s No. 12-A-2 Wells, C NW NE Section 12-25-36, is rigging up rotary after cementing 15½-inch at 150 feet. Empire Gas & Fuel Co.'s No. 1 Dyer, NE SW SE Section 31-35-37, is moving in materials.

Eunice Area

One new location was spotted in the Eunice Pool, Tide Water Oil Co.'s No. 4 Coleman, C SE SE Section 17-21-36. The Ohio Oil Co.'s No. 2 State-McDonald, C NW SW Section 14-22-36, 5 miles south of the main development, plugged back from 4,350 feet, where it had water to 3,850 feet and completed it as a gas well. It gauged 36,000,000 feet. Several oil shows were ruined by water instrusion. It is located 5 miles to the southeast of the main development.

Continental Oil Co.'s No. 17-A-4 Meyers, C NE SW Section 17-21-36, which looked rather disappointing at 3,850 feet, where it swabbed only a little gas and oil, was deepened to 3,950 feet and treated with 2,000 gallons of acid. It is swabbing, but no gauge has been made. Shell-Denvonian's No. 1 State, C SW NE Section 20-21-36, was deepened from 3,989 feet to 4,022 feet and a drill stem test showed 150 feet of fluid of which 83 feet was oil in one hour. Skelly Oil Co.'s No. 1 Coleman, C NW NW Section 17-21-36, is drilling at 2,812 feet in anhydrite and lime, and Texas Co.'s No. 2 Rector, C SE SE Section 30-21-36, is drilling at 531 feet in red beds. Gypsy Oil Co.'s No. 2 Bell-Ramsey, C SW NW Section 9-21-36, is drilling at 2,863 feet in lime. Humble Oil & Refining Co.'s No. 1-B State, C SW NW Section 29-21-36, cemented 9⅝-inch at 3,071 feet with 825 sacks and is waiting. Atlantic Oil Co.'s No. 1-F State, C SW SW Section 29-21-36, is drilling at 644 feet in red beds, and Continental Oil Co.'s No. 8-A-2 Meyers, C SE SW Section 8-21-36, is drilling at 2,360 feet in lime and anhydrite.

Hobbs Area

Shell Petroleum Corp.'s No. 1-D State, SE cor. NW Section 24-18-37, on the northwestern edge of the pool, is a completion at 4,260 feet and gauged 3,952 bbls. in 24 hours with 3,300,000 feet of gas after treating with 1,000 gallons of acid. The 7-inch is at 4,030 feet and the 3-inch at 4,258 feet. It proves up one location to the north and west of production. Gypsy Oil Co.'s No. 4 East Grimes, C NE NE Section 33-18-38, had a show of oil at 3,205-15 feet and is drilling at 3,605 feet. Oil Well Drilling Co. and others' No. 1 Grimes, SW NE SE Section 20-18-38, is drilling at 3,355 feet in anhydrite.

Eddy County

Skelly Oil Co.'s No. 1 Lea, C NW NW Section 23-17-31, Maljamar area, was completed for 40 bbls. a day natural from the pay at 3,800-10 feet after plugging back from 3,828 feet to 3,812 feet and treating with 2,000 gallons of acid. Leonard, Inc.'s No. 1 Robinson, C NE SW Section 25-16-31, is fishing for tools at 4,365 feet.

The two wells drilling north of the Artesia Pool which open some good drilling territory are listed as completions. Tignor, Etz & Keyes' No. 1-A Keyes, C SE SW Section 10-17-28, a semiwildcat, flowed 40 bbls. a day through the casing after being shot with 120 quarts. Total depth is 1,973 feet. Etz, Hammond & Keyes' No. 1 State, C SE SE Section 16-17-28, 1½ miles from the nearest producer, was completed at 1,964 feet in the pay at 1,945-57 feet and made 25 bbls. initial on the pump. The 5⅛-inch was cemented at 1,945 feet. A new location in this same territory is Van Welch, Jr.'s No. 3 State, NE Section 22-17-28. A. & M. Petroleum Co.'s No. 1 State, SW NE Section 15-21-27, Carlsbad district, is drilling at 625 feet in anhydrite and lime.

Lea Area

Texas Co.'s No. 1 Swearingin, C NE SW Section 8-20-34, is rigging up cable tools, and its No. 1 Elliott, C NE NE Section 22-20-34, is drilling at 410 feet in red rock. Same company's No. 4-A Lynch, C SE NE Section 34-20-34, is drilling at 1,590 feet in red beds.

Maljamar Area

Maljamar Oil & Gas Co.'s No. 4 Baish, NE SE NE Section 21-17-32, is drilling at 1,590 feet in the red beds.

Chaves County

Comanche Drilling Co.'s No. 1 Sloop-Pyrcell, NE cor. SE Section 10-11s-26, Roswell district, is shut down at 150 feet.

Roosevelt County

The Claudell Development Co.'s No. 1 Wilmes, C SW SE Section 21-2s-30, Pomeroy district, is drilling at 1,120 feet. The 12½-inch was cemented at 890 feet and the 15½-inch at 400 feet. This test is running consistently higher than typical log worked out from other wells drilled in the neighborhood. It is being drilled on the basis of a magnetometer survey made by Cecil Yandon and Henry B. Caudill.

Curry County

George Schoonmaker and others' No. 1 Hart, C SE SE Section 13-2n-32, Melrose district, which spudded to 55 feet and shut down, is reported to have been taken over by Wirt Franklin, of Oklahoma. The report has not been verified.

Santa Fe County

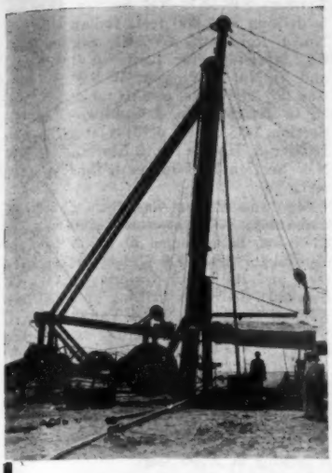
Elmer Fisher's No. 1 Hill, Section 6-10n-7e, Barton district, is drilling below 2,200 feet in lime in the top of the Magdalena formation with a good show of oil and a smell of gas. Holmberg Interests' No. 1 Cantwell, NW cor. Section 5-10n-9e, near Stanley, reamed the 10-inch to 650 feet. It had a show of oil in a lime streak at 600 feet. These two wells were visited the past week by officials of the Atchison, Topeka & Santa Fe Railroad while on their way to the dry ice plant at McIntosh.

San Juan County

Nick Spatter's No. 1, C NE SW Section 32-31-11w, Aztec district, lowered the 8¼-inch to 904 feet and is drilling at 930 feet.

Valencia County

The Western Natural Resources Corp., Inc.'s No. 2 San Clemente grant, SW cor. NE Section 5-6n-1e, De Chaves district, which changed over to rotary at



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5,155 feet, is reported close to the top of the Dakota sand at 5,379 feet with cores showing some saturation.

COLORADO

Moffat County

Texas Co.'s No. 1 Van Schaick, SW cor. Section 19-12-100, West Hiawatha, or Bartram Dome, was completed at 2,143 feet, total depth, for an estimated flow of 12,000,000 feet of gas a day from sand in the Wasatch at 2,124-43 feet. It is a diagonal offset on the northeast to the Mountain Fuel Supply Co.'s No. 1 Lasher, NW NE NE Section 25-12-101, completed early in 1930 for 5,310,000 feet a day in sand at 2,125-50 feet. It is also a diagonal offset on the northwest to Mountain Fuel Supply Co.'s No. 1 Wheeler, SE NW NW Section 30-12-100, completed last November for 7,000,000 feet at 1,970 feet, total depth. The completion of No. 1 Van Schaick probably ends the drilling in the Hiawatha district for the winter. Mountain Fuel Supply Co. has some materials on the ground for No. 1 Murdock, SE cor. NE Section 24-12-101, but it may not be drilled until spring.

Stanolind Oil & Gas Co.'s No. 14-SD Parkinson, NE SW Section 22-4n-92, Iles Dome, is drilling at 2,475 feet, and its No. 22-SD Shaw, NW SE NW Section 27-4n-92, is standing with cellar completed.

Routt County

Texas Co.'s No. 9 Quaintance-Hocking, NE SW NE Section 18-6n-86, Tow Creek, is running the 8⅝-inch to bottom at 3,000 feet.

Jackson County

Continental Oil Co.'s No. 3 Hoye, NW cor. NE Section 34-9n-78, South McCallum, plugged back from 2,297 feet to 2,140 feet and shut down for the winter. Temperature at Walden generally is below zero most of the winter. The discovery well in the Walden district blew in December, 1926, and it may be recalled that completing the carbon dioxide gas-oil well was an extremely difficult task.

Boulder County

Drilling for oil and finding gold is what happened in a well drilled two years ago 10 miles north of Boulder by the St. Vrain Petroleum Trust, of which C. C. Jain is the head. The well started in the top of the Dakota and was drilled into artesian water in the Sundance at 512 feet. Mr. Jain says the Dakota was entirely normal, but when the Lakota was reached it could hardly be recognized it had become so highly mineralized. The Morrison showed even greater mineralization. The sands were tested for gold and silver and ran an average of $3 to the ton in the first named metal. The search for oil was abandoned in favor of gold.

Leslie R. Steele's No. 1 Cole, NW cor. NE Section 33-1n-70, Parallel Dome, is drilling at 2,780 feet and drawing near the next objective expected at 2,800 feet, a sand in the Hygiene which probably will carry some gas.

Park County

South Park Oil Co.'s No. 1 State, SE cor. SW Section 16-11s-75, Hartsell district, has landed the 12½-inch on bottom at 320 feet for a water shutoff.

Archuleta County

Navajo Oil Co.'s No. 1 Crowley, SW cor. NE Section 11-32-1e, Chromo district, reported abandoned at 390 feet last week, will continue to the Sundance. The crew has returned to the location and will ream the 10-inch to bottom to shut off water. Oil City Petroleum Co.'s No. 2-X Garnett, NE cor. Lot 3, Section 25-33-1e, Price district, is bottomed at 560 feet with 200 feet of fluid in the hole, part of which is oil. It topped an unidentified sand at 532 feet after shutting off water with the 8¼-inch at 526 feet.

WYOMING

Big Horn County

Ohio Oil Co.'s No. 2 Byron Union, C SE NE Section 22-56-97, Byron Dome, is a near completion and reports are it will make a good well. This is the first oil test drilled to the pay on the structure since 1930. Total depth is reported at 5,496 feet, in the Tensleep. The 8⅝-inch was cemented at 5,404 feet and the top of the Tensleep was at 5,433 feet. It is about 1,500 feet to the south of No. 1 Byron Union, which was completed in 1930 for around 600 bbls. initial, although it was believed at the time that by the use of gas for lifting it could have been made into a much bigger producer.

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No. 1 had the Embar at 5,304-25 feet, red shale at 5,325-41 feet, and the Tensleep at 5,341-5,455 feet.

Peter Evanoff and others' No. 1 Griffin, Lot 60, Section 4-55-97, Garland Dome, cemented the 12½-inch at 246 feet and is waiting. Taylor Oil Co.'s No. 1 Hoskins, SE SE Section 25-56-97, is still fishing for drill stem at 5,275 feet. Jerome Drumheller's No. 1 Martin, SW SE NE Section 17-49-91, Manderson district, is drilling below 800 feet.

Albany County

California Co.'s No. 1 Holst, NE SE SE Section 13-17-77, Quealy Dome, is drilling at 2,706 feet.

Carbon County

Earl W. Reeder, Inc.'s No. 1 Union Pacific, C SW SW Section 19-20-83, Overland Dome, is drilling at 5,665 feet. Another show of oil, which swabbed at the rate of 200 bbls. a day, was encountered at 5,535-75 feet. Same company's No. 1 Whitford, SW SE SE Section 24-20-84, is moving in equipment. Ohio Oil Co.'s No. 1 Morris, C NW SE Section 6-20-77, Diamond Dome, is resuming at 2,874 feet. Argo Oil Co.'s No. 1 Government, NE cor. SE Section 5-24-87, O'Brien Springs, is spudding at 150 feet. Sinclair-Wyoming Oil Co.'s No. 4 Wertz, SW cor. SE Section 7-26-89, Wertz Dome, is cleaning out to bottom at 3,528 feet. Tools will go to 3,491 feet.

Fremont County

Monongahela Oil Co.'s No. 1 Wisda, NE SE SE Section 13-28-93, Crook's Gap, is drilling below 3,000 feet. Nelson & Pouppiert's No. 5, SW SE NW Section 27-3n-1w, Pilot Butte, is drilling at 760 feet.

Hot Springs County

California Exploration Co.'s No. 1 Government, NE SE NE Section 12-44-97, Waugh Dome, is drilling at 2,700 feet after cementing 10¾-inch at 2,535 feet.

Natrona County

Sinclair-Wyoming Oil Co.'s operations in Salt Creek include the following: No. 1-M, SW cor. SE Section 18-40-78, cleaning out and bailing at 2,700 feet, 23 feet off old bottom. No. 4-J, NE SE SE Section 30-40-78, is cleaning out and bailing at 2,328 feet, 6 feet off old bottom. No. 5-F, NE SE NW Section 19-40-78, is making new hole and drilling at 2,510 feet in sand. No. 8-J, NE cor. SE Section 30-40-78, is cleaning out and bailing at 2,543 feet, 19 feet off of bottom.

Park County

Val M. Kirk's No. 2 Kirk, SE SW SW Section 24-58-98, Frannie Dome, is coring at 2,775 feet and showing good saturation. It will be an early completion. Stanolind Oil & Gas Co.'s No. 6 Rosenberg, NW cor. Section 25-58-98, has not yet been given a pumping test. At 2,747 feet, total depth, is swabbed 108 bbls. in six hours.

Sheridan County

Sheridan Syndicate's No. 1 Allison, SW SE Section 15-55-85, Beaver Creek, cemented the 8¼-inch at 2,045 feet with 100 sacks. Total depth is 2,150 feet.

Sweetwater County

The status of Sinclair-Wyoming Oil Co. operations in the Lost Soldier Field follows: No. 76, SW cor. NW Section 11-26-90, drilling at 351 feet. No. 73-A, SE NW SW Section 11-26-90, an old well drilling deeper from 1,910 feet, bailing at 1,900 feet. Last named was completed in the Lakota at 1,883-1,910 feet in 1926 for 250 bbls. initial. No. 51-A, C SW SW Section 11-26-90, standing cemented at 565 feet. No. 46-A, SE cor. Section 3-26-90, cleaning out to new bottom at 1,795 feet. No. 28-A, NW SE NE Section 10-26-90, running rods and tubing at 655 feet.

Weston County

Conway Oil Corp.'s No. 1 Government, C SE NW Section 7-41-60, Dewey district, is running 10-inch to bottom at 595 feet to shut off water in the Dakotas. Irene Eaton's No. 14, NE SW Section 30-46-63, Osage Field, cemented the 8¼-inch at 460 feet and is waiting. An operation not heretofore reported is Chadron-Osage Oil Co.'s No. 7 Albert Jones, CSL SW NE Section 21-46-63, which is drilling at 630 feet after passing up sand at 570-576 feet showing some oil and gas.

MONTANA

Glacier County

Five completions, one dry, and one new location were reported in the Cut Bank Field. The best completion was Santa Rita Oil & Gas Co.'s No. 4 Cardwell, C Lot 1 (NE NE) Section 22-35-6w, in the northwestern section near a group of good producers. It was drilled to 2,880 feet and oil rose 2,000 feet. It swabbed 312 bbls. first 18 hours from sand at 2,855-69 feet.

An important completion, although not a large well, is Texas Co.'s No. 1 Jones, C NE NE Section 6-33-5w, 2½ miles northwest of Texas Co.'s No. 1 State, which marks the southeastern boundary of the development, and 3 miles south of the nearest producer in that direction. It was completed at 2,846 feet and swabbed 66 bbls. first 10 hours.

The failure was Montana Headlight Oil Co.'s No. 3 Yunck, W SW SW Section 1-34-6w, plugged and abandoned at 2,831 feet. It had a show of oil and gas at 2,735 feet and topped the Ellis at 2,781 feet. It is located one-half a mile southwest of Drumheller's No. 1 Yunck, a gas well which was one of the earlier producers, and an east offset to Par Oil Co.'s No. 1 Haines, these two wells being among the first to attract attention to the area.

Lon Crumley's No. 1 Jones, C NW SE Section 31-34-5w, a mile to the northwest of the Montana Power Co.'s No. 1 Simero, and southeast of the town of Cut Bank, proved to be a small well. It was drilled to 2,798 feet and oil rose 2,400 feet in the hole. It swabbed at the rate of 2½ bbls. an hour and is estimated good for 18 to 20 bbls. settled production.

Montana Power Gas Co.'s No. 1 Scheuren, C SW SW Section 21-33-5w, in the southern part of the field a mile southeast of its No. 1 Neil, swabbed 52 bbls. first 19 hours from sand at 3,054-65 feet.

The new location is Nadeau Brothers' No. 1 Farmers State Bank, C NW NE Section 17-33-5w, a mile west and a little north of Texas Co.'s No. 1 State and 2 miles south and a little east of Texas Co.'s No. 1 Jones. Consolidated Gas Co.'s No. 1 Tribal, E NE NE Section 34-35-6w, is drilling at 195 feet, and its No. 2 Tribal, NE SE NE Section 34-35-6w, has rig up. Fisk and others' No. 1 Harper, C NE NE Section 21-34-6w, is drilling at 1,890 feet. Hannah-Porter Co.'s No. 2 Britton, SW NE NE Section 23-34-6w, is drilling at 2,350 feet. Indian Oil Co.'s No. 1 Reickhoff, SW SE Section 3-34-6w, is fishing for bailer at 1,940 feet, and its No. 2 Winkler, W SW SW Section 23-35-6w, is fishing at 2,585 feet. R. C. Jeffries' No. 1 Lukens, C SE SE Section 1-33-6w, is drilling at 2,185 feet. Lawler & Hoer's No. 2 Harland, C NW NW Section 8-33-5w, is drilling at 2,500 feet.

Montana Power Gas Co.'s No. 2 De Zort unit, 700 feet north, CSL Section 23-35-5w, is bottomed at 2,755 feet and showed for 2,000,000 feet of gas at 2,754 feet, and its No. 1 Gaines, C NW NE Section 6-33-5w, is drilling at 2,125 feet. Nadeau Brothers' No. 4 Van de Mar, C SW NE Section 35-35-6w, is standing rigged.

Olive Oil Co.'s No. 2 Winkler, W NW NE Section 35-35-6w, cemented the 8¼-inch on bottom at 2,751 feet with 50 sacks. Santa Rita Oil & Gas Co.'s No. 4 Tribal, C N half SW Section 15-35-6w, is drilling at 2,750 feet.

R. C. Tarrant's No. 5 Haglund, Jr., C SW NE Section 13-34-5w, is drilling at 1,920 feet, and his No. 3 Miller, E NE NE Section 24-34-6w, is drilling at 1,435 feet. His No. 1 State, C SE SE Section 36-34-6w, is drilling at 2,780 feet. Texas Co.'s No. 1 Kneale, C SW NW Section 14-35-6w, cemented the 7-inch at 2,860 feet, and its No. 5 Purdy, E NW NW Section 35-35-6w, is drilling at 1,040 feet. Watson and others' No. 1 Simero, NE SW NE Section 1-33-6w, is drilling at 2,475 feet.

Carbon County

Ohio Oil Co.'s No. 14 Maddox, C NW NW Section 10-7s-21, Dry Creek, on the northwestern flank, plugged back from the Lakota at 6,112 feet, where it had water, to the Dakota and is testing.

Fergus County

H. Clark Rowland and others' No. 1 Woodward, SE cor. SW Section 20-14-24, Button Butte district, is drilling at 2,976 feet.

Petroleum County

Guy Smith and others' No. 3, NE SE SW Section 33-14-26, Flatwillow district, is drilling at 315 feet.

Phillips County

Bowdoin Gas Utilities Co.'s No. 527 McChesney, C SE NE Section 14-31-34, Bowdoin gas field, was completed at 900 feet for 750,000 feet of gas. Same company's No. 528, C SW NE Section 23-31-34, is drilling at 425 feet. British-American Syndicate's No. 1 Hedges, S NW NE Section 17-32-33, gauged 962,800 feet in 24 hours with a rock pressure of 235 pounds at 1,053 feet, total depth.

Stillwater County

Continental Oil Co.'s No. 1 Orr, SW NW SE Section 18-5s-17, Dean-Ingersoll district, is drilling at 2,255 feet in gray and black shale.

Toole County

A surprise resulted in the completion of A. Beardsley's No. 3 Swears, C SE NW Section 9-35-2w, in the western part of the Kevin-Sunburst Field, in an area which had its principal development in 1923 to 1926, for 165 bbls. first 24 hours, without acid treatment at 1,651 feet, total depth. Twenty-seven wells were drilled in Section 9 in the earlier development, of which five were in the northwest quarter of the section. The best of these was Texas Pacific Coal & Oil Co.'s No. 3 Howling, NE NE NE Section 9, which made 2,400 bbls. initial. A dry hole in the northwest corner of the section stopped the development in that direction. There are around 50 locations undrilled which show promise as a result of the completion. Bi-State Oil Co.'s No. 3 Haemel, SE SE Section 3-34-1w, is drilling at 1,425 feet. T. P. Kyle's No. 1 Clark, SW cor. SE Section 19-37-1e, Bow and Arrow district, is drilling at 378 feet.

UTAH

Mountain Fuel Supply Co.'s No. 2

(Continued on Page 78)

★ ★

did you know that there are 32 rigid inspection tests before Allegheny places their final "OK" on a shipment of

ALLEGHENY STEEL PIPE

to the oil fields?

ALLEGHENY STEEL CO., Brackenridge, Pa.

Sales Offices and Warehouse Stocks in the Principal Cities

ALLEGHENY PRODUCTS: SHEETS FOR AUTOMOBILE BODIES, METALLIC FURNITURE, DEEP DRAWING—ALLEGHENY METAL—ALLEGHENY ALLOYS—ELECTRICAL SHEETS—STEEL CASTINGS—SEAMLESS TUBING—BOILER TUBES—PIPE.

TECHNICAL QUESTIONS ANSWERED

By Charles K. Francis, Ph. D., Technical Editor

This department of The Oil and Gas Journal is devoted to the manufacturing branches of the oil industry.

Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit their problems to Dr. C. K. Francis, technical editor. The department was created for the purpose of aiding managers, superintendents, engineers, chemists and all those engaged in the various phases of plant operation; also those connected with marketing and utilization of petroleum products.

Questions should be submitted in as much detail as possible.

Inquiries must be signed but only the given initials will be printed. The source of the question is considered to be confidential.

Questions requiring a discussion of patents, the use of intricate formulas, extended computations, or cost estimates cannot be considered.

When the matter is of general interest the reply will be published within a reasonable time.

Making Derrick Foundation That Will Distribute Load Right

The directions for building wooden derricks which you gave in reply to a question by R. T. S. in your issue of October 11, 1934, was of particular interest to me, for it gave some information which I myself wanted. I would like to get some directions along the same line for the construction of the foundations for derricks, either wooden or steel. May I ask you for this information? I would like to know just how to make a mechanically perfect foundation.—S. N. G.

A helpful discussion of derrick foundation building is given by Prof. L. C. Uren in his "Petroleum Production Engineering." He says:

"To distribute loading properly and to keep all mechanical equipment in proper alignment, the derrick should be provided with a rigid foundation. This may be of either timber or concrete, but the latter material is preferable, especially if the well to be drilled is a deep one and heavy loads are to be imposed. The size of the foundation to be provided may be determined only after an inspection of the subsoil upon which the foundation is to rest. Alluvial soil is capable of supporting a load of only 1,000 pounds per square foot without yielding; soft clay or wet sand, 2,000 pounds; firm dry loam, 5,000 pounds; compact sand, gravel and boulders, 10,000 pounds; rock, 30,000 pounds. Having estimated the total dead load of the derrick and the live load to which it will be subjected, the total is divided equally among the four legs and a footing constructed for each leg having a base of such size as will distribute the load over an area of subsoil capable of supporting it.

"It is very important that the foundation be absolutely rigid and unyielding, for if one corner yields under strain the total load is thrown on the two adjacent legs and failure of the structure may result. It is said that most derrick failures are caused by unequal loading of the derrick legs, caused by subsidence of some part of the structure under strain.

"Wooden derrick footings are generally constructed of heavy timbers, often 8 by 10 inches or larger, nailed together to form a pyramidal structure of appropriate height and with a base of such size as to spread the load over a sufficient area. The base of the footing is preferably buried in the earth sufficiently to minimize the tendency of the subsoil to shift or flow under the load imposed. The derrick footing cannot yield unless the soil is pressed out from beneath it. Soil, sand or gravel yields more readily wet than dry, hence proper drainage of the subsoil under the derrick footings should receive attention. This may be accomplished to some extent by simply heaping the soil from the excavation to form a mound about the footing. Gravel tamped into the excavation about the timber provides a firmer base in soft soils.

"Concrete derrick footings are of various forms, often reinforced with steel wire mesh to distribute the load over the entire area of the base and to offset the tendency of the pier upon which the derrick leg rests from punching through the slab at the base. For deep wells, where long heavy strings of casing must be handled, concrete footings are always to be preferred, whether the derrick be of steel or timber, but especially where a steel derrick is to be used. The greater security against collapse of the structure provided by concrete foundation, greater resistance against decay and better distribution of strain among all parts of the rig assure longer life to the derrick, lower maintenance costs and, most important of all, safety of personnel."

Cetene and Index Numbers and Critical Compression Ratio

Cetene number, critical compression ratio, and Diesel index number are mentioned as items in a set of specifications covering fuel oils. Will you be good enough to explain these terms?—A. C. R.

Studies of fuel oils have suggested that additional information beyond the ordinary physical tests usually mentioned in fuel oil specifications is desirable for the grades of oil suitable for Diesel-type engines. The American Society for Testing Materials, through its Committee D-2, has suggested six grades of Diesel fuel oils, among these being Nos. 1-D, 3-D, and 4-D, for medium low to low viscosities, for which the limiting numbers are:

	Oil grades		
Test—	1-D	3-D	4-D
Diesel index No., Min. ...	45	30	20
Cetene No., Min.	50	40	30
Critical comp. ratio, Max..	8.1	8.8	9.8

These items are explained by the A.S.T.M. as follows:

Diesel Index Number. — Diesel index number is calculated from aniline point and A.P.I. gravity by the following formula:

$$\text{Diesel Index Number} = \frac{(\text{A.P.I. gr. } 60°\text{F.}) \times (\text{aniline point, } °\text{F.})}{100}$$

Aniline point is the lowest temperature at which equal parts by volume of freshly distilled aniline and the test sample of oil are completely miscible. It is determined by heating such a mixture in a jacketed test tube to a clear solution and noting the temperature at which turbidity appears as the mixture is cooled.

For A.P.I. gravity see the Standard Method of Test for Gravity of Petroleum and Petroleum Products by Means of the Hydrometer (A.S.T.M. Designation: D 287) of the American Society of Testing Materials[1].

Cetene Number. — Cetene number was first proposed by Boerlage and Broeze of the Bataafsche Petroleum Maatschappij[2] and is the percentage of cetene in a blend of cetene and alphamethylnaphthalene which has the same ignition quality (measured in a specified engine under a definite set of engine conditions) as the fuel under test. It may be determined from the critical comperssion ratio by determining this ratio for various blends of cetene and alphamethylnaphthalene and plotting the curve.

Critical Compression Ratio.—The critical compression was first proposed by Pope and Murdock of the Waukesha Motor Co.[3]. It is determined on a C.F.R. engine modified to run as a Diesel engine by replacing the ignition system with a fuel pump and fuel injection valve and also replacing the regular piston with one of special design. The operating conditions are as follows:

Speed, r.p.m.	600
Fuel feed, ml. per min.	9
Injection advance angle, degrees before true dead center	12
Injection pressure, lbs. per sq. in. ...	1,500
Jacket temperature, °F.	212
Air inlet temperature, °F.	100

The critical compression ratio is obtained by motoring the engine at the selected speed and noting the compression ratio at which firing occurs (as judged by the sound of the exhaust) within three seconds after the fuel is injected.

[1]1933 Book of A.S.T.M. Standards, Part 2, p. 819.

[2]Boerlage and Broeze, "Ignition Quality of Diesel Fuels as Expressed in Cetene Numbers," Journal, Soc. Automotive Engrs., July, 1932.

[3]Pope and Murdock, "Compression Ignition Characteristics of Diesel Fuels," Journal, Soc. Automotive Engrs., March, 1932.

Meaning of Viscosity When Used With Petroleum Oils

What is the meaning of viscosity as used for lubricating oils? Is there a difference between a scientific meaning and the practical?—J. S. M.

When viscosity is used in strictly scientific work it is the practice to measure what is termed the internal resistance to flow as expressed in absolute viscosity; the statement being made in degrees per square centimeter or poises or absolute centipoises.

In practical or industrial work, viscosity is an indication of lubricating value as indicated by time of flow. This should be stated in terms of a given instrument and a definite temperature. See the following references:

For a mathematical discussion of viscosity see Fluidity and Plasticity, by E. C. Bringham, 1922. W. H. Herschel, J. Automotive Engrs., Vol. 10, 31, 1922.

Conversion of Saybolt viscosity to absolute viscosity. Report of Committee on Viscosity Standards, Amer. Pet. Inst., 1922-24, also W. H. Herschel, Loc. cit.

Early Methods for Manufacturing Alcohol From Petroleum

Could you give me an outline of the first methods, with the references, for making ethyl alcohol from petroleum?—A. A. C.

The first attempts to produce ethyl alcohol by synthetic methods were those in which the ethylene from coke-oven or coal-gas was absorbed in sulphuric acid, and the resulting ethyl hydrogen sulphate hydrolyzed with steam. The alcohol was distilled from the solution. The concentrated acid, 95 to 100 per cent, was used at a temperature between 60° and 80° F. The work following with petroleum has been confined to the purification of the ethylene, derived from petroleum, and determining the important factors such as time, temperature, concentration of the acid, and satisfactory catalysts.

Dr. Benjamin T. Brooks, in his paper on alcohols and related products from petroleum, read before the World Petroleum Congress, July 19-25, 1933, gives a brief history of the early investigations and the references.

"Synthetic ethyl alcohol, as made from properly purified oil gas, is purer than ethyl alcohol made from fermentation. A small proportion of ethyl ether is normally obtained, this by-product constituting a new industrial source of this material.

"The issued patents resulting from the industrial work in Europe and America deal with special improvements in the process of manufacture. The Skinningrove Iron Co.[1] describes the preliminary removal of hydrogen sulphide, drying the gas by 80 per cent sulphuric acid, treating the gas counter-current with 95 per cent sulphuric acid at 60° to 80° C., dilution of the acid mixture and distillation of the alcohol. The claims of the patent, however, are limited to certain heat exchange principles.

"Catalysts have been proposed to promote the absorption of ethylene by the acid. Damiens[2] mentions a score of elements alleged to have a catalytic effect but in a later patent he claims only cuprous oxide[3] or cuprous salts, in 66° Baume sulphuric acid and at 15° to 50° C. Damiens states that dilution of the resulting acid mixture with 60 per cent of its weight of water and then distilling gives 22 per cent of ether to 78 per cent of alcohol; by diluting with 140 per cent of water only 4 per cent of ethyl ether to 96 per cent of alcohol is obtained. The same writer states that although the addition of silver or mercury salts gives rapid ethylene absorption in 95.5 to 99.5 per cent sulphuric acid at 60° C., hydrocarbon polymers mainly are formed. Englehardt and Lommel[4] have patented the use of silver salts in sulphuric acid for this purpose. Glund and Schneider[5] have shown that, using 94 per cent sulphuric acid and one-half per cent silver nitrate, the rate of absorption at 20° C. is about equal to the rate for acid alone at 80° C.; at 40° C. The rate with the catalyst is three times the rate of acid alone at 80° C. However, catalysts are not necessary for efficient absorption."

REFERENCES

[1]Brit. Patent, 147,360, 1919.
[2]Brit. Patent, 152,495.
[3]Damiens and others, U. S. Patent, 1,574,796.
[4]U. S. Patent, 1,458,646; cf. The Distillers Co., Ltd., Brit. Patent, 370,136.
[5]Ber., 1924, 57, 254.

Bureau of Mines Statistics for the Month of August, 1934

STOCKS OF CRUDE PETROLEUM

(Thousands of barrels of 42 gallons)

	August 31, 1934	July 31, 1934	August 31, 1933
At refineries by location:			
East Coast: Domestic	11,885	10,744	9,190
Foreign	2,180	2,516	3,088
Appalachian	1,403	1,454	2,143
Indiana, Illinois, Kentucky, Michigan	4,047	4,511	3,857
Oklahoma, Kansas, and Missouri	5,676	5,736	5,892
Texas: Inland	1,962	1,909	2,695
Gulf Coast: Domestic	9,731	10,353	11,469
Foreign	304	305	43
Louisiana Gulf Coast: Domestic	3,612	3,559	3,627
Foreign	475	604	698
Arkansas and Inland Louisiana	612	616	1,007
Rocky Mountain	13,291	13,337	12,730
California	9,036	8,413	8,289
Total	64,214	64,107	64,718
At refineries by origin:			
Pennsylvania Grade	1,288	1,345	2,005
Other Appalachian (inc. Kentucky)	583	585	513
Lima-Northeast Indiana-Michigan	397	471	311
Illinois-Southwest Indiana	130	111	119
North Louisiana and Arkansas	2,192	2,152	2,290
West Texas and Southeast New Mexico	4,082	4,029	3,857
East Texas	8,055	7,443	9,446
Oklahoma, Kansas, North Texas, etc.	15,530	16,147	16,735
Gulf Coast	6,792	6,681	4,616
Rocky Mountain	13,260	13,305	12,708
California	9,036	8,413	8,289
Foreign	2,959	3,425	3,829
Total	64,214	64,107	64,718
Pipe line and tank farm:			
Pennsylvania Grade	3,791	3,691	3,977
Other Appalachian (inc. Kentucky)	669	715	700
Lima-Northeast Indiana-Michigan	1,197	1,109	933
Illinois-Southwest Indiana	11,326	11,238	10,891
North Louisiana and Arkansas	8,265	8,409	9,745
West Texas and Southeast New Mexico	25,168	24,946	29,731
East Texas	30,976	34,156	40,334
Oklahoma, Kansas, North Texas, etc.	144,260	145,816	135,422
Gulf Coast	12,084	11,871	12,403
Rocky Mountain	14,970	15,028	14,942
California	25,624	25,834	26,908
Total	278,330	282,813	285,986
Lease (producers') stocks	8,294	8,340	9,241
Total refinable crude in the United States	350,838	355,260	359,945

STOCKS OF CRUDE PETROLEUM BY STATES AND BY LOCATION

(Thousands of barrels of 42 gallons)

	August 31, 1934				July 31, 1934			
	Refinery	Tank farm and pipe line	Lease	Total	Refinery	Tank farm and pipe line	Lease	Total
Arkansas	537	3,137	320	3,994	509	3,691	330	4,530
California	9,036	25,624	1,619	36,279	8,413	25,834	1,634	35,881
Colorado	273	57	20	350	273	76	20	369
Georgia*	543	.....	.....	543	666	.....	.....	666
Illinois	1,339	10,754	100	12,193	1,290	10,807	100	12,197
Indiana	1,151	1,859	8	3,018	1,496	1,891	8	3,395
Kansas	1,673	12,271	400	14,344	1,750	12,582	410	14,742
Kentucky†	491	410	50	951	470	443	56	969
Louisiana‡	4,162	7,846	250	12,258	4,270	8,081	235	12,586
Maryland	1,246	.....	.....	1,246	1,258	.....	.....	1,258
Massachusetts§	1,195	.....	.....	1,195	1,022	.....	.....	1,022
Michigan	175	710	85	970	295	625	95	1,015
Missouri¶	183	3,599	.....	3,782	183	3,510	.....	3,693
Montana	248	518	80	846	210	501	70	781
New Jersey	5,595	374	.....	5,969	5,611	387	.....	5,998
New Mexico	6	325	180	511	7	293	180	480
New York	1,370	111	17	1,498	1,379	89	17	1,485
Ohio	1,068	7,269	85	8,422	1,143	7,551	85	8,779
Oklahoma	3,820	83,275	1,680	88,775	3,853	84,322	1,680	89,855
Pennsylvania	5,285	2,011	100	7,396	4,548	1,864	90	6,502
Texas	11,997	101,938	2,800	116,735	12,567	103,875	2,850	119,292
Utah	284	.....	.....	284	304	.....	.....	304
West Virginia	57	1,870	120	2,047	47	1,965	110	2,122
Wyoming‖	12,480	14,342	380	27,202	12,543	14,426	370	27,339
Total United States	64,214	278,330	8,294	350,838	64,107	282,813	8,340	355,260

*Includes South Carolina and Virginia. †Includes Tennessee. ‡Includes Alabama. §Includes Rhode Island. ¶Includes Iowa. ‖Includes Nebraska and South Dakota.

INDICATED DOMESTIC DEMAND FOR CRUDE PETROLEUM

(Thousands of barrels of 42 gallons)

Domestic petroleum by fields of origin:	August, 1934 Total	August, 1934 Daily av.	July, 1934 Total	July, 1934 Daily av.	Jan.-Aug., 1934	Jan.-Aug., 1933
Appalachian:						
Pennsylvania Grade	2,047	66	2,077	67	16,409	14,644
Other (inc. Kentucky)	650	21	635	21	4,395	4,396
Lima-N.E. Ind.-Mich.	1,109	36	1,085	35	8,142	5,005
Ill.-S.W. Ind.	372	12	386	12	3,394	3,407
Mid-Continent:						
N. La. and Ark.	1,815	59	2,052	66	15,150	15,647
W. Texas-S.E. N. Mex.	5,813	188	6,319	204	47,759	50,971
East Texas	17,673	570	18,807	607	130,156	316,692
Other (Okla., Kans., N. Tex., etc.)	29,366	947	28,989	935	207,977	
Gulf Coast	7,350	237	5,631	182	50,764	49,175
Rocky Mountain	1,925	62	1,685	54	11,087	9,973
California	14,321	462	14,989	483	112,347	110,610
Total demand	82,451	2,660	82,655	2,666	607,580	580,520
Exports	3,696	119	4,128	133	26,666	23,573
Domestic demand	78,755	2,541	78,527	2,533	580,914	556,947
Foreign petroleum	2,993	96	2,876	93	22,991	25,948
Total domestic demand	81,748	2,637	81,403	2,626	603,905	582,895

RECEIPTS OF FOREIGN CRUDE PETROLEUM

(Thousands of barrels of 42 gallons)

Atlantic Seaboard:	August, 1934	July, 1934
Venezuela	2,084	1,863
Colombia	.....	108
Mexico	376	270
Trinidad	.....	23
Gulf Coast:		
Mexico	.....	208
Venezuela	68	218
Total	2,527	2,695

RECORD OF WELLS FOR IMPORTANT FLUSH FIELDS, AUGUST, 1934*

	Completions Oil	Gas	Dry	Total initial production (bbls.)	Av. initial production (bbls.)	Drilling Aug. 31
Texas	637	20	173	730,200	1,150	1,139
East Texas	357	...	5	642,600	1,800	229
Gulf Coast	57	4	27	32,200	560	172
Conroe	10	...	...	10,800	1,080	8
Greta	5	1	1	1,700	340	16
West Texas	47	...	13	15,000	320	176
California	33	...	26	64,600	1,960	206
Kettleman Hills	3	...	...	44,900	5,610	25
Long Beach	3	...	...	300	100	17
Huntington Beach	1	...	...	100	100	4
Oklahoma	100	3	49	69,400	690	433
Oklahoma County	3	...	...	5,600	1,870	26
Pottawatomie and Seminole Counties	15	1	2	7,600	510	71
New Mexico	9	...	2	21,800	2,420	72
Lea County (Hobbs)	5	...	...	21,600	4,320	42
Other states	437	111	137	73,400	170	1,167
Total United States	1,216	134	387	959,400	790	3,003

From The Oil and Gas Journal and California office of the American Petroleum Institute.

SUPPLY AND DEMAND OF ALL OILS

(Thousands of barrels of 42 gallons)

NEW SUPPLY:	August, 1934	July, 1934*	August, 1933	Jan.-Aug., 1934	Jan.-Aug., 1933
Domestic production:					
Crude petroleum	79,058	81,548	85,485	609,286	609,135
Daily average	2,550	2,631	2,758	2,507	2,507
Natural gasoline	2,031	2,945	2,840	23,485	22,036
Benzol†	115	122	159	1,142	859
Total production	82,204	84,615	88,484	633,913	632,030
Daily average	2,652	2,730	2,854	2,609	2,601
Imports:					
Crude petroleum	‡2,527	‡2,695	3,674	‡23,895	23,346
Refined products	1,034	1,406	1,678	9,351	9,978
Total new supply, all oils	85,765	88,716	93,836	666,159	665,354
Daily average	2,767	2,862	3,027	2,741	2,738
Increase in stocks, all oils	‡3,614	3,525	6,492	‡12,494	28,351
DEMAND:					
Total demand	89,379	85,191	87,344	678,653	637,003
Daily average	2,883	2,748	2,818	2,793	2,621
Exports:					
Crude petroleum	3,696	4,128	3,141	26,666	23,573
Refined products	5,944	6,143	5,048	49,208	46,152
Domestic demand:					
Motor fuel	38,933	37,395	37,400	268,492	250,517
Kerosene	2,753	2,815	2,791	27,433	22,746
Gas oil and fuel oil	23,891	21,223	25,119	216,118	201,841
Lubricants	1,498	1,491	1,552	12,535	11,041
Wax	53	53	134	603	797
Coke	551	481	969	5,236	6,031
Asphalt	1,745	1,525	1,344	8,451	7,804
Road oil	1,518	1,367	936	5,796	3,340
Still gas (production)	4,234	4,142	4,250	29,325	30,210
Miscellaneous	168	127	148	1,189	1,017
Losses and crude used as fuel	4,395	4,301	4,502	27,591	30,934
Total domestic demand	79,739	74,920	79,155	602,779	567,279
Daily average	2,572	2,417	2,553	2,481	2,334
STOCKS:					
Crude petroleum	350,838	355,260	359,945	350,838	359,945
Natural gasoline	4,790	4,551	3,779	4,790	3,779
Refined products	234,091	233,522	256,821	234,091	256,821
Total all oils	589,719	593,333	620,545	589,719	620,545
Days' supply	205	216	220	211	237

*Revised. †From Coal Division. ‡Receipts of foreign crude as reported to Bureau of Mines. §Decrease.

PRODUCTION OF CRUDE PETROLEUM BY DISTRICTS

(Thousands of barrels of 42 gallons)

Appalachian:	August, 1934 Total	August, 1934 Daily av.	July, 1934 Total	July, 1934 Daily av.	Jan.-Aug., 1934	Jan.-Aug., 1933
Pennsylvania Grade	2,110	68	2,075	67	15,885	13,668
Other (inc. Kentucky)	596	19	571	18	4,191	4,078
Lima-N.E. Ind.-Mich.	1,023	33	1,019	33	7,884	4,980
Ill.-S.W. Ind.	479	15	468	15	3,654	3,092
Mid-Continent:						
N. La. and Ark.	1,696	55	1,764	57	13,660	14,494
W. Texas-S.E. New Mex.	6,078	196	5,768	186	44,034	48,096
East Texas	15,065	486	16,822	543	122,286	144,293
Other (Okla., Kans., N. Tex., etc.)	27,173	877	27,824	898	213,428	202,738
Gulf Coast	7,704	249	7,423	240	53,590	49,448
Rocky Mountain	1,842	59	1,760	56	11,850	9,849
California	15,292	493	16,054	518	117,824	114,401
Total	79,058	2,550	81,548	2,631	609,286	609,135

SHIPMENTS FROM CALIFORNIA TO EASTERN PORTS IN THE UNITED STATES*

(Thousands of barrels of 42 gallons)

	August, 1934	July, 1934	August, 1933	Jan.-Aug., 1934	Jan.-Aug., 1933
Gasoline	730	808	1,055	5,266	7,606
Natural gasoline	.....	.....	.....	.....	81
Kerosene	75	85	62	1,001	938
Gas oil and Diesel oil	157	.....	116	1,470	1,402
Fuel oil	1,070	816	67	9,902	868
Lubricants	10	5	1	48	30
Asphalt	1	1	1	74	1
Miscellaneous	2	1	14	50	156
Total	2,045	1,716	1,316	17,811	11,082

*Compiled by E. T. Knudsen of the San Francisco office of the Bureau of Mines.

NUMBER OF WELLS COMPLETED IN THE UNITED STATES*

	August, 1934	July, 1934	August, 1933	Jan.-Aug., 1934	Jan.-Aug., 1933
Oil	1,216	1,182	635	8,200	4,176
Gas	134	93	84	803	546
Dry	387	392	280	2,695	2,202
Total	1,737	1,667	999	11,698	6,924

*From The Oil and Gas Journal and California office of American Petroleum Institute.

STOCKS HELD BY REFINING COMPANIES, AUGUST 31, 1934

(Thousands of barrels of 42 gallons)

	Gasoline				Gas oil and distillate fuels	Residual fuel oils
	At refineries	Bulk and pipe lines	Total	Kerosene		
East Coast	5,110	9,631	14,741	1,943	5,625	7,786
Appalachian	799	*1,261	2,060	175	287	645
Ind., Ill., Ky., etc.	3,932	3,461	7,393	662	2,892	2,665
Okla., Kans., Mo.	3,187	1,645	4,832	710	1,272	2,069
Texas Inland	1,452	54	1,506	166	341	1,510
Texas Gulf	3,788	656	4,444	2,065	5,070	6,523
Louisiana Gulf	830	498	1,328	401	1,992	2,020
Ark. and La. Inland	245	42	287	30	147	993
Rocky Mountain	691	....	691	125	158	389
California	10,289	1,981	12,270	1,291	5,143	71,207
Total	30,323	*19,229	49,552	7,568	22,927	95,807

	Wax (thousands of pounds)				Coke (tons)
	Lubricant	Crude scale	Refined	Total	
East Coast	2,042	22,411	30,777	53,188	29,100
Appalachian	1,004	15,315	2,648	17,963	7,300
Ind., Ill., Ky., etc.	502	14,051	2,027	16,078	52,800
Okla., Kans., Mo.	460	2,575	973	3,548	49,300
Texas Inland	101	.....	271	271	56,300
Texas Gulf	1,663	2,513	14,825	17,338	99,500
Louisiana Gulf	102	799	1,374	2,173	400
Ark. and La. Inland	14	.....	.....	.....	100
Rocky Mountain	93	8,107	1,036	9,143	86,300
California	860	.....	.....	.....	96,900
Total	6,841	65,771	53,931	119,702	478,000

	Asphalt (tons)	Road oil	Miscellaneous	Unfinished oils: Crude gasoline	Unfinished oils: Other	Natural gasoline
East Coast	111,300	76	34	922	7,898	259
Appalachian	11,000	18	32	307	1,968	4
Ind., Ill., Ky., etc.	76,900	161	26	1,053	5,923	41
Okla., Kans., Mo.	9,500	171	28	557	5,097	82
Texas Inland	.....	44	6	255	1,126	10
Texas Gulf	12,800	33	30	1,353	10,241	172
Louisiana Gulf	23,100	13	.....	216	1,206	10
Ark. and La. Inland	40,100	25	1	50	281	3
Rocky Mountain	4,200	80	10	144	1,820	7
California	50,100	172	48	888	4,400	2,613
Total	339,000	793	215	5,745	39,960	3,201

Grand total stocks refined products 234,091,000 bbls.
*Revised figures for July 31, 1934—Appalachian, 1,169,000; United States, 19,634,000.

RUNS TO STILLS AND OUTPUT OF REFINERIES, AUGUST, 1934

(Thousands of barrels of 42 gallons)

INPUT—	Crude run: Domestic	Crude run: Foreign	Crude run: Total	Unfin. rerun (net): Crude	Unfin. rerun (net): Gasoline	Unfin. rerun (net): Other	Natural gasoline
East Coast	12,104	2,796	14,900	—2	—235		26
Appalachian	3,159	....	3,159	14	175		23
Ind., Ill., Ky., etc.	11,244	....	11,244	105	—318		153
Okla., Kans., Mo.	8,382	....	8,382	77	111		449
Texas Inland	5,537	....	5,537	—65	—59		327
Texas Gulf	15,979	69	16,048	322	118		186
Louisiana Gulf	3,511	126	3,637	—5	—97		17
Ark. and La. Inland	1,668	....	1,668	124	—58		44
Rocky Mountain	1,720	....	1,720	—15	—20		71
California	13,403	....	13,403	142	—11		*733
Total	76,707	2,991	79,698	697	—394		2,059

OUTPUT—	Gasoline	Kerosene	Gas oil and distillate fuels	Residual fuel oils	Lubricants	Wax (M lbs.)
East Coast	5,968	723	1,764	3,631	590	17,080
Appalachian	1,595	218	203	473	410	6,160
Ind., Ill., Ky., etc.	6,153	361	1,081	1,413	195	2,240
Okla., Kans., Mo.	4,815	552	588	1,726	232	2,800
Texas Inland	2,851	333	398	1,640	20	280
Texas Gulf	7,540	1,123	1,846	4,172	461	3,080
Louisiana Gulf	1,242	374	612	991	31	840
Ark. and La. Inland	851	86	86	525	8	.....
Rocky Mountain	881	51	77	327	30	1,400
California	5,349	485	2,068	5,010	175	.....
Total	†37,245	4,306	8,723	19,908	2,152	33,880

OUTPUT (continued)—	Coke (tons)	Asphalt (tons)	Road oils	Still gas	Miscellaneous	Shortage
East Coast	12,200	160,900	104	830	71	11
Appalachian	2,000	14,200	—2	224	28	117
Ind., Ill., Ky., etc.	52,800	52,700	363	901	18	137
Okla., Kans., Mo.	14,600	8,700	185	418	21	371
Texas Inland	—4,200	.....	52	125	6	335
Texas Gulf	14,800	17,800	38	987	12	312
Louisiana Gulf	.....	15,800	2	147	....	63
Ark. and La. Inland	200	7,500	37	44	5	94
Rocky Mountain	8,400	3,500	175	98	2	49
California	200	38,700	406	460	‡15	85
Total	101,000	319,800	1,360	4,234	173	1,574

*Includes 81,000 bbls. run through pipe lines.
†Includes 405,000 bbls. special naphthas.
‡Includes 5,000 bbls. liquefied petroleum gas made from natural gasoline.

CRACKED OPERATIONS

Fresh cracking stock charged to stills: Crude, 5,016,000 bbls.; other oils, 39,053,000 bbls.; gasoline produced by cracking, 16,965,000 bbls.; fuel oil produced by cracking, 16,720,000 bbls.

GASOLINE PRODUCTION BY THE VARIOUS METHODS, AUGUST, 1934

(Thousands of barrels of 42 gallons)

	Straightrun: Total	Straightrun: Per cent (*)	Straightrun: Per cent (†)	Cracked: Total	Cracked: Per cent (*)	Cracked: Per cent (†)	Natural gasoline: Total	Natural gasoline: Per cent†	Gasoline: Total	Gasoline: Per cent*
East Coast	3,033	20.3	50.8	2,899	19.5	48.6	36	0.6	5,968	39.8
Appalachian	766	24.3	48.0	806	25.5	50.5	23	1.5	1,595	49.8
Ind., Ill., etc.	2,610	23.2	42.4	3,390	30.2	55.1	153	2.5	6,153	53.4
Okla., Kans., Mo.	2,282	27.2	47.4	2,064	24.6	42.9	469	9.7	4,815	51.8
Texas Inland	1,659	30.0	58.2	865	15.6	30.3	327	11.5	2,851	45.6
Texas Gulf	3,427	21.3	45.4	3,927	24.5	52.1	186	2.5	7,540	45.8
Louisiana Gulf	734	20.2	59.1	491	13.5	39.5	17	1.4	1,242	33.7
Ark. and La. Inland	393	23.6	46.2	414	24.8	48.6	44	5.2	851	48.4
Rocky Mountain	443	25.8	50.3	367	21.3	41.6	71	8.1	881	47.1
California	2,879	21.5	53.8	1,742	13.0	32.6	728	13.6	5,349	34.5
Total	18,226	22.9	48.9	16,965	21.3	45.6	2,054	5.5	37,245	44.2

*Per cent of crude run. †Per cent of total gasoline output.

SHIPMENTS OF MOTOR FUEL BY PIPE LINES

(Thousands of barrels of 42 gallons)

	Aug., 1934	July, 1934	Aug., 1933	Jan.-Aug., 1934	Jan.-Aug., 1933
Motor fuel turned into lines	4,210	4,293	3,663	29,474	24,393
Motor fuel delivered from lines	4,221	4,191	3,660	29,463	24,410
Shortage	19	14	5	73	41
Stocks in lines and working tanks end of month	1,250	1,280	1,140	1,250	1,140

COMPARATIVE ANALYSES

(Thousands of barrels of 42 gallons)

	August, 1934: Total	August, 1934: Daily av.	July, 1934: Total	July, 1934: Daily av.	Jan.-Aug., 1934	Jan.-Aug., 1933
CRUDE PETROLEUM:						
Runs to stills	79,698	2,571	79,812	2,575	595,174	571,576
MOTOR FUEL:						
Production	38,124	1,230	37,641	1,214	280,617	269,736
Imports	.....	.....	.....	.....	1	10
Exports*	2,169	70	1,717	55	17,075	20,119
Stocks, gasoline	49,552	.....	52,769	.....	49,552	49,641
Stocks, natural gasoline	4,790	.....	4,551	.....	4,790	3,779
Domestic demand	38,933	1,256	37,395	1,206	268,492	250,517
KEROSENE:						
Production	4,306	139	4,256	137	35,007	32,686
Imports	.....	.....	.....	.....	.....	.....
Exports	983	32	778	25	6,563	5,369
Stocks	7,568	.....	6,998	.....	7,568	8,604
Domestic demand	2,753	89	2,815	91	27,433	23,746
GAS OIL AND FUEL OIL:						
Production	28,114	907	27,420	885	216,701	204,092
Transfers†	517	17	611	20	5,523	5,867
Imports:						
Bonded warehouses	492	16	869	28	6,741	4,492
For domestic use	536	17	516	17	2,425	5,326
Exports	1,978	64	2,626	85	18,542	13,367
Stocks	118,734	.....	114,944	.....	118,734	135,321
Domestic demand	28,891	771	21,223	685	216,118	201,841
Railroad (Class I)‡	(§)	(§)	3,714	120	¶25,265	¶22,823
Pub. util. pow. plants‖	908	29	912	30	6,880	6,213
Other	22,983	742	16,597	535	183,973	172,805
Bunker oil	2,562	83	2,327	75	19,919	22,990
LUBRICANTS:						
Production	2,152	69	2,209	71	17,686	15,027
Imports	.....	.....	.....	.....	.....	.....
Exports	595	19	688	22	5,340	5,278
Stocks	6,841	.....	6,782	.....	6,841	7,402
Domestic demand	1,498	48	1,491	48	12,535	11,041
WAX (thous. of pounds):						
Production	33,880	1,093	34,160	1,102	313,360	294,560
Imports:						
Bonded warehouses	55	1	333	11	3,498	1,120
For domestic use	826	27	1,093	35	25,032	16,528
Exports	15,299	494	13,804	445	126,916	166,900
Stocks	119,702	.....	115,137	.....	119,702	86,136
Domestic demand	14,897	481	14,732	475	169,105	223,407
COKE (short tons):						
Production	101,000	3,258	96,000	3,097	850,200	1,055,600
Stocks	478,000	.....	493,800	.....	478,000	1,035,900
ASPHALT (short tons):						
Production	319,300	10,316	317,500	10,242	1,777,400	1,519,700
Imports (natural)	700	23	2,900	94	14,300	13,100
Stocks	339,000	.....	359,300	.....	339,000	268,100

*Includes benzol, 1,852 bbls. in August, 1934. †Net transfers in California. ‡Interstate Commerce Commission. §Not available. ¶January-July. ‖U. S. Geol. Survey.

PRODUCTION OF CRUDE PETROLEUM BY STATES AND PRINCIPAL FIELDS

(Thousands of barrels of 42 gallons)

	August, 1934: Total	August, 1934: Daily av.	July, 1934: Total	July, 1934: Daily av.	Jan.-Aug., 1934	Jan.-Aug., 1933*
Arkansas	946	31	1,016	33	7,510	7,741
California:						
Huntington Beach	1,373	44	1,455	47	10,261	7,401
Kettleman Hills	1,987	64	2,082	67	14,119	14,745
Long Beach	1,948	63	2,096	68	15,676	17,018
Santa Fe Springs	1,241	40	1,286	41	10,102	12,886
Rest of State	8,743	282	9,135	295	67,666	62,351
Total California	15,292	493	16,054	518	117,824	114,401
Colorado	116	4	109	3	748	623
Illinois	402	13	394	13	3,096	2,654
Indiana	77	2	74	2	558	448
Kansas	4,037	130	4,210	136	31,240	27,692
Kentucky	447	14	427	13	3,072	2,996
Louisiana:						
Gulf Coast	2,288	74	2,320	75	13,775	9,677
Rest of State	750	24	748	24	6,150	6,748
Total Louisiana	3,038	98	3,068	99	19,925	16,425
Michigan	938	30	939	30	7,220	4,288
Montana	413	13	341	11	2,202	1,437
New Mexico	1,523	49	1,460	47	11,084	9,043
New York	333	11	335	11	2,460	2,026
Ohio:						
Central and Eastern	285	9	277	9	2,168	2,109
Northwestern	85	3	80	3	664	682
Total Ohio	370	12	357	12	2,832	2,791
Oklahoma:						
Oklahoma City	4,821	156	5,396	174	43,870	43,999
Seminole	3,327	107	3,399	110	26,187	27,871
Rest of State	6,838	221	6,814	220	53,382	48,129
Total Oklahoma	14,986	484	15,609	504	123,439	119,999
Pennsylvania	1,273	41	1,270	41	9,645	8,168
Tennessee	1	.....	1	.....	7	3
Texas:						
Gulf Coast	5,416	175	5,103	165	39,815	39,771
West Texas	4,578	148	4,341	140	33,224	39,287
East Texas	15,065	486	16,822	543	123,286	144,293
Panhandle	1,804	58	1,857	60	13,311	11,400
Rest of State	6,346	205	6,148	198	45,438	43,641
Total Texas	33,209	1,072	34,271	1,106	255,074	278,392
West Virginia	367	12	336	11	2,724	2,442
Wyoming:						
Salt Creek	556	18	528	17	4,322	4,771
Rest of State	724	23	739	24	4,304	2,775
Total Wyoming	1,280	41	1,277	41	8,626	7,546
Total United States	79,058	2,550	81,548	2,631	609,286	609,135

*Final figures, includes Alaska, Mississippi, Missouri and Utah.

C. V. DIBBLE DIES

OIL CITY, Pa., Oct. 29.—Claude V. Dibble, 89, one of the oldest veterans of the oil industry, died here after an illness of seven month. He was born near Titusville in 1845. His first connection with the industry was as a teamster. He hauled oil in barrels to Oil Creek where they were shipped down the Allegheny to Pittsburgh. As a youth he lived in Enterprise and later moved to Bredinsburg, where he engaged in the production of oil. In the meantime he had been in Pithole during the excitement there. He continued as a producer in the Bredinsburg area for 25 years, later operating in Sugarcreek and having an interest in several Oklahoma producing companies.

ST. LOUIS INJUNCTION

JEFFERSON CITY, Mo., Oct. 29.—A temporary injunction has been issued in Federal Court to restrain the State Public Service Commission from enforcing its order for the Laclede Gas Light Co. of St. Louis to reduce its rates $212,000 annually.

FIELD PROBLEMS FROM READERS

Edited by Thomas F. Smiley

This department is conducted in order that men connected with the drilling, producing and transporting branches of the petroleum industry may obtain aid in solving problems that confront them in their work. Readers are invited to send questions freely. These questions will be placed in the hands of persons capable of answering them authoritatively, and the answers, based on the best available information, will be published.

Each question should give as much detail as possible, especially if it involves depths of sands, types of sands and operations on adjoining or nearby properties. The source of questions will be considered confidential, and only the initials of the sender will be published. Questions involving patented processes, intricate formulas or estimate of cost cannot be answered. If an immediate answer is important, one will be given by mail when the writer requests it.

In this connection, The Oil and Gas Journal will be glad to publish articles from field men who have devised new methods or improved old ones.

Making Steam-Driven Pump a Part of Integrated Diesel Unit

I am in charge of a pump station equipped with steam-driven pumps. We are considering installation of Diesel engines and the question has arisen as to whether any of the present equipment can be salvaged in making this change. Can you give me any information as to whether anything of this sort has been done on other pipe lines and how it was done?—F. E. N.

Modernization of a pipe line station by replacing steam-driven pumps with Diesel engines or electric motors has ordinarily been an expensive undertaking in the past, involving as it usually did the installation of entirely new units. It generally has been necessary to discard the entire pump, although the fluid end might have been entirely serviceable. The possibility of replacing the steam end with a Diesel engine, which through an improvised connection would drive the fluid end, has been looked upon as impractical, if not impossible.

The Texas Pipe Line Co., however, coverted a steam-driven pipe line pump into a part of a completely integrated Diesel-powered unit at its Corsicana, Tex., station. This was accomplished without any mechanical alteration to the pump and without disturbing the main foundation.

The unit converted was a 5¾x6 and 20x44 cross compound crank and flywheel high-duty pressure pipe line steam pump, duplex double acting on the fluid end. The flywheel, being in two parts, was removed without disturbing the crankshaft and the two steam cylinders were unbolted. The remainder of the pump was left in place on its old foundation. However, the portion of the foundation under the steam cylinders was removed so that the engine foundation might come as close as possible. An asphalt cushion was run between the two foundations.

A standard right angle double reduction gear was used as the connecting medium between the pump and the engine. The main gear of this unit was split to facilitate assembly upon the crankshaft in the same location as formerly occupied by the flywheel. The gear ratio is 4.44:1 which, with an engine of 200 r.p.m., gives a pump speed of 45 strokes and a capacity of 24,000 bbls. per day at 750 pounds pressure.

To permit reasonably close coupling of the engine without excessive length of unsupported shaft, a short floating shaft having a piloted flexible coupling on the gear end and a piloted mislaignment coupling on the engine end was used. This arrangement provided ample flexibility between the driving and driven units and allowed for a possible shifting between the two foundations.

The Diesel engine was a standard four-cylinder air-injection type, turning at 200 r.p.m. and developing 400 horsepower at that speed.

The complete set-up was analyzed for torsional vibrations to determine the possible location of critical speeds. A 35-kilowatt enclosed type generator, which supplies power for all station use, was mounted on a structural framework supported on the pump frame. This generator was driven by V-belts from a pulley mounted on the gear shaft extension. In this position the generator conserves floor space and permits closer coupling of the entire unit.

A completely closed jacket water cooling system similar to that being adopted in most modernized stations was installed. High-pressure heat exchangers were installed in the main line discharge, the pipe line oil being used to cool the jacket water circulated through the shell of the exchangers. Twin motor driven centrifugal pumps circulate the water.

Why Rotary Method Has Come to Take Place of Cable Tools

May I call upon The Oil and Gas Journal to explain to me how the rotary method of drilling came to be adopted? It is not used in all parts of the country. Is that because it is more expensive? I believe wells drilled by the rotary method are usually (perhaps always) finished with cable tools. Why is that?—L. E. N.

Wells in all oil fields of the United States were drilled with cable tools up to 1901, though four years before that experiments had begun with a rather crude outfit employing the rotary principle. Cable tools were satisfactory in drilling through the hard, compact formations in the eastern fields, but as explorations were pushed westward it became imperative to find some way of dealing with the soft, caving and unconsolidated formations encountered in Texas, Oklahoma and California. The rotary system was the result. In his work on "Oil Well Completion and Operation," Professor H. C. George of the University of Pittsburgh, says concerning this development:

"The rotary system was first used in drilling for oil in 1897 in Texas, where it was evolved to drill through unconsolidated sands and shales that caved when subjected to the vibrations of churn drilling tools. Capt. J. F. Lucas in 1901 successfully used the method in the Spindletop Field, Texas. The rotary system aided materially in the development of the coastal and salt dome fields of Texas and Louisiana; certain oil fields of Oklahoma where frequently two or three thousand feet of soft Permian Red Beds overlie the oil sands; the oil fields of northwest Louisiana and Arkansas in soft cretaceous formations and the Los Angeles Basin, San Joaquin Valley, Ventura, and other fields of California with their thick, unconsolidated sands and shales. The Powell and Mexia fields in Texas and most of the other oil fields located along the Balcones fault in Cretaceous formations have been drilled with rotary tools.

"Most of the recently developed oil fields in Oklahoma, such as Tonkawa, Davenport, Seminole and Oklahoma City, were also drilled with rotary tools, although completions except at Oklahoma City were made usually with standard tools after setting and cementing the water string. Completing rotary drilled wells with cable tools was formerly the general practice in many oil fields, because there was some danger of passing up producing sands with the rotary. However, the taking of cores in rotary drilling has eliminated much of this hazard, and many wells are now completed with rotary tools. The Oklahoma City Field illustrates the change from standard-tool to rotary-tool completion during the period covered by the development of the field. The first wells in this field were completed with standard tools, but after the first year of development in the field most wells were completed with rotary tools.

"Prior to 1923, the Salt Creek Field, (Wyoming), and the majority of the Rocky Mountain fields were drilled with cable tools. In California the older fields were drilled with cable tools, but later many wells were drilled with rotary tools to the water-shutoff point, and after cementing the water string these wells were completed with cable tools. Recent developments at Santa Fe Springs, Huntington Beach, Long Beach, Kettleman Hills, and other California fields have been carried on entirely by rotary drilling methods.

"The cable-tool system of drilling is still used exclusively in the oil fields located east of the Mississippi River. Furthermore, most of the shallow wells of northern Texas and Oklahoma are drilled with cable tools or portable drilling machines. The Burbank Field of Oklahoma and the Texas Panhandle Field were drilled with cable tools."

No Hard-and-Fast Line Is Drawn Between These Three Terms

Just what distinction is made, please, between the terms "gas drive," "repressuring" and "pressure maintenance"? In articles discussing rejuvenation of oil fields where these terms are used it is hard for me to tell sometimes just what the difference is.—E. E. S.

No hard-and-fast lines can be drawn between these three terms. The term "gas drive" is usually applied to an operation the primary object of which is to force gas through a sand and, mainly by propulsive force of this gas, cause additional oil to move towards and into various oil wells. But in doing this the pressure must be raised to some slight extent in parts of the sand, and if, as frequently happens, certain casinghead pressures at outlet wells have to be increased in order to avoid by-passing, the general increase of pressure in the sand becomes greater and the gas drive merges into a repressuring operation.

Again, it cannot be said that the distinction between gas drives and repressuring depends on whether or not gas is dissolved in oil underground, for in the first place a certain amount of gas must be dissolved in oil in connection with any gas drive, and in the second place repressuring can and does take place altogether apart from any solution effect.

On the other end of the scale certain repressuring operations merge into those which come under the heading of pressure maintenance, and remembering all these facts it seems best to describe the three types of operations according to their main objects by saying that in gas drive operations the main object is the propulsion of additional oil underground to oil wells, in repressuring the main object is to increase reservoir pressure (and hence sooner or later oil production), while pressure maintenance, as its name implies, has as its object the prevention of any appreciable loss in rock pressure from the time that development begins.

In reservoirs where edgewater does not advance rapidly the importance of gas injection is generally recognized, and discussion centers largely around the questions, (a) whether the general tendency is toward high pressure (repressuring) or towards low pressure (gas drives), (b) whether injected gas should be wet or dry, and (c) whether pressure maintenance is the ideal towards which the operator should work.

Why Was It Called That?

JACK

Probably no word in the field of mechanics is more familiar than "jack." In the oil field there are the pumping-jack, boot-jack (a fishing-tool) and others. To get to the origin of the word it is needful merely to recall the long-time practice of utilizing the name Johnnie or Jack where the real name is not known or where it is desired to refer to boys or young men generally. "When Johnnie comes marching home again," "All work and no play makes Jack a dull boy," and so on. Originally a jack was any mechanical contrivance that took the place of a boy or attendant such as might have been called Jack. The use of the word was widened till now it embraces a large family.

NATURAL GAS DEVELOPMENTS

Gas Companies Increase Customers by 277,000

ATLANTIC CITY, N. J., Oct. 29.—Manufactured and natural gas companies gained 277,000 domestic customers during the first eight months of this year, it was announced by Paul Ryan, chief statistician of the American Gas Association, at the sixteenth annual convention of the association here.

This gain in customers is reflected in the fact that a total of 540,000 gas ranges were sold in the country during the first eight months of 1934. This was an increase of 26 per cent in range sales over the first eight months of 1933. Approximately 73 per cent of the sales consisted of relatively high priced ranges, incorporating modern automatic features, such as oven heat control, etc.

For the eight months ending August 31, manufactured gas industry revenues aggregated $255,499,100, an increase of 1.1 per cent over the corresponding period a year ago. Revenues of the natural gas industry were $214,710,800, or 4.6 per cent above last year.

In discussing some financial aspects of the manufactured gas industry for the year 1933, Mr. Ryan stated that, as a result of increased costs during that year, particularly increased taxation, net income declined by more than 30 per cent, aggregating only $47,997,000. This represented a decline of nearly 45 per cent from the net income available for dividends and surplus in 1931. In that year 19.7 cents out of every dollar of operating revenue was carried down to net income, while in 1933 this figure had fallen to 12.6 cents.

Taxes paid by manufactured gas companies have shown a continued and persistent increase during the past few years. In 1929 taxes amounted to 9.3 per cent of the operating revenues of the industry, whereas by 1933 the rate had risen to 11.4 per cent. The total taxes of $43,644,000 paid by the manufactured gas industry in 1933 amounted to $4.45 for each customer served.

Production of natural gas in 1933 was practically unchanged from the preceding year, output aggregating 1,555,474,000,000 feet. Of this amount 32 per cent was used for field purposes, such as drilling, etc., 12 per cent was burned in the manufacture of carbon black, 7 per cent used as generator fuel by electric power plants, 4 per cent used as fuel at petroleum refineries. The remaining 45 per cent was distributed by pipe lines and public utility companies for domestic, commercial and industrial uses.

Wichita Falls Company Gets 25-Year Franchise

WICHITA FALLS, Tex., Oct. 29.—The Wichita Falls Gas Co. has been granted a 25-year franchise by a four-to-two vote. The motion to grant the franchise was made by Alderman Mack Taylor, seconded by Alderman Vic Stampfli and supported by Mayor John T. Young and Alderman Mark Walker.

"I am bitterly disappointed in this council in its action to accept this gas franchise and pass it in this form," said Alderman Puckett. "The very thing for which we have held out during these several weeks past and which we have demanded has been omitted. No mention whatever is made here of any bond."

Mayor Young quickly stopped Mr. Puckett's comments, stating that the franchise had been adopted.

New York and Pennsylvania Gas Areas; One Completion in Clarion County

WELLSBORO, Pa., Oct. 29.—There was one completion in the Speechley gas sand and none in the Oriskany or shallow sands of north central Pennsylvania and south central New York during the week. In Clarion County, Farmington Township, Fryburg Motor completed its McCloskey farm well at 2,335 feet in the Speechley for 25,000 feet a day. The Tiona sand was found at 2,208 feet, and the pay at 2,220 feet. The sand was very broken and dry.

Tioga County

East Penn Development Co.'s Presbyterian Church well, Farmington Township, Tioga County, was down 2,111 feet. E. Cabot was down 1,768 feet on the W. F. Burroughs farm, Gaines Township, same county, and a location on the John Stiles farm, Clymer Township, same county. A well on the Roscoe Kemp farm, Farmington Township, drilled by East Penn Development, was down 2,208 feet.

Potter County

The No. 2 S. Gooch of Hanley & Bird, Allegany Township, Potter County, was drilling at 5,626 feet. P. P. & L. was fishing at 5,302 feet on the Clair Doty, Hector Township, same county. Cunningham Natural Gas was shut down at its George Carroll, Oswayo Township, same county. United Producers was drilling at 5,621 feet at its No. 2 M. Wilsey, Hebron Township, same county. Stocum and others were shut down at 4,625 feet at their J. W. Wells, Allegany Township. Electro Geometer was drilling at 3,812 feet on the Katherine Currier farm, where the Elk was reached at 2,165 feet, Allegany Township.

Other Hebron Township operations in Potter County were: P. P. & L., drilling at 2,600 feet on the Chloe Kenyon farm; Penn United, drilling at 2,490 feet on the Burt and Lyman property; Lycoming, drilling at 518 feet on the W. B. Hemphill farm; same company drilling at 1,235 feet on W. White farm; same company, drilling at 2,865 feet on the O. W. Greenman farm, and at 1,635 feet on the R. and G. Carmer farm. Potter Development Co. is preparing to spud in No. 2 Penn State, and is drilling at 1,915 feet on the B. L. Langworthy farm. Sylvania Natural Gas is drilling at 370 feet at its No. 2 John Higley.

In Genesee Township, Potter County, Bayliss is drilling at 1,001 feet on the Earl Pye farm. In Shippen Township, Cameron County, Tioga Natural Gas is bailing water at 4,685 feet at its No. 1 Emporium Bank. This company's No. 2 Emporium Bank is still shut down at 4,470 feet, same township. Columbia Carbon is drilling at 4,512 feet on the C. Campbell farm, Ridgebury Township, Bradford County.

New York Operations

Geneva Gas is drilling at 1,810 feet on the Stewart Nurseries property, Phelps Township, Ontario County. Trumbull is drilling at 2,700 feet on the Ethel Arnold farm, Galen Township, Wayne County. Empire is drilling at 1,200 feet on the Dean estate, Alma Township, Allegany County. Tri-State Gas is drilling at 320 feet on the N. D. White farm, Bath Township, Steuben County. Belmont Quadrangle is digging cellar for its T. H. Wing, Greenwood Township, Steuben County. Same company is moving in on the Joseph Waugh farm, Dix Township, Schuyler County.

Pennsylvania Speechley

Wells drilling in Clarion County, Pennsylvania, are: Alum Rock Gas Co., drilling in the Hundred-Foot sand at 755 feet, Highland Township, with daily production of 17,720 feet found in the Salt sand at 573-79 feet; same company in the Forty-Foot sand at 570 feet, on the Glass farm, Perry Township; Gilford Brothers, drilling at 160 feet on the Shaming farm, Farmington Township; Neely, shut down at 1,050 feet on the Pollack farm, Perry Township; Vogelbacher Brothers, in the Red Rock at 365 feet, Knox Township. Fryburg Motor is rigging up for its No. 2 McCloskey, Farmington Township. Short Brothers are spudding at 35 feet on the S. Win Wilson farm, Highland Township.

Two Leaders in the Natural Gas Industry

Christy Payne, Sr., treasurer of the Standard Oil Co. (New Jersey), presenting a service button to John B. Tonkin, president of the Peoples Natural Gas Co., and of the Lycoming Producing Corp., on completion of Mr. Tonkin's 40 years of service with Standard Oil Co. of New Jersey interests.

Rate Reduction Hearing on Wichita Falls, Dec. 3

WICHITA FALLS, Tex., Oct. 29.—The three-year-old battle to enforce an ordinance requiring drastic reductions in rates of the Municipal Gas Co. is scheduled to come before the Texas Railroad Commission in a hearing continued from October 31 to December 3.

Attorneys for the city announced they would be ready. The J. A. Phillips Co. of Fort Worth is making a complete audit of the company's books and a survey of the company's plant is being made by F. M. Rugeley, city engineer, and Julian Montgomery, state engineer for the PWA.

The ordinance, adopted in the summer of 1931, provided for abandoning the ready-to-serve charge and reducing the domestic gas rate from 75 to 50 cents per month. A few weeks after the ordinance was adopted the utility obtained a writ from the rail commission suspending the edict pending final hearing.

Bond of the gas company is now $300,000 in this case but attorneys differ in opinion as to whether patrons can recover any of the excess charges during the past three years if the city's rates are upheld.

MOUNT PLEASANT RATE

MUSKEGON, Mich., Oct. 29.—Consideration of Mount Pleasant, Mich., city commission's request for a review of natural gas rates of the Gas Corporation of Michigan are expected to be delayed pending action by the Michigan Public Utilities Commission on the company's application for a new pipe line permit. Date for a hearing has not been announced. The city commission refused the company's offer of a 2-cent reduction in the house heating rate and voted to carry the rate question to the state commission for readjustment.

PERSONAL PARAGRAPHS

A. BEEBY THOMPSON, petroleum engineer, has returned to London, England, from a visit to the Rumanian oil fields.

* * *

ARNOLD C. RATHKEY, gas engineer of the Iowa Public Service Company, was elected president of the Waterloo Technical Society at its fall session

* * *

J. E. WARREN has been placed in charge of the Carl B. King Drilling Company activities in the West Texas and eastern New Mexico district, with headquarters at Midland, Tex.

* * *

P. D. MELLON, chief engineer of the Canadian Western Natural Gas, Light, Heat & Power Company, of Calgary, Alberta, recently visited the company's system in Lethbridge, Alberta.

* * *

JOSEPH F. ROONEY, assistant treasurer of the American Gas Association since 1929, has been elected treasurer to fill the unexpired term of the late WILLIAM J. WELSH. Mr. Rooney is assistant to the vice president, Consolidated Gas Company of New York.

* * *

F. E. RENNER, office manager for George G. Hanner, independent operator in the Porter Pool. Mount Pleasant, Mich., was severely injured in an automobile accident when his car struck a ridge of loose gravel, left the road and hit a tree in the Central Michigan Field last week.

* * *

J. FRED STRICKLAND, with Sinclair Prairie Oil Company, has been transferred from the Bartlesville to the Shidler, Okla., office.

* * *

JOE A. GERRITY, Dallas, Tex., representative of the Southern Alkali Company, Corpus Christi, Tex., was a Tulsa visitor last week.

* * *

A. D. ENGLE, Oklahoma City, Okla., is now representing the Rector Well Equipment Company and the Cameron Irons Works in Oklahoma and Kansas.

* * *

FRED COMMERCE, export manager for the Continental Supply Company, New York, is in England to spend some time on company business.

* * *

E. W. MILES was recently made manager of the domestic heating oil department of the Standard Oil Company (Indiana), with headquarters at Chicago.

* * *

J. F. BASHARA, independent oil operator, Houston, Tex., has returned from an extended tour through Europe and Asia Minor. On the trip he visited his native home in Syria.

* * *

E. F. MORAN, of Tulsa, drilling contractor, was in Casper, Wyo. Mr. Moran is drilling a wildcat test for the Continental Oil Company on the Nye-Dean anticline near Columbus, Mont.

* * *

J. B. D. WOODBURN, representative for the Chemical Process Company in the Seminole, Oklahoma, area, returned to Breckenridge, Tex., to attend the "Oil Jubilee and Homecoming" in that city on October 26 and 27.

* * *

E. F. UNDERWOOD is now manager of all wholesale sales of the Skelly Oil Company with headquarters at Kansas City, Mo. He has been succeeded at Chicago as division wholesale sales manager by R. L. JORDAN.

W. H. BURKE, of the Shell Petroleum Corporation exploitation engineering department, Tulsa, is convalescing in the hospital, following an operation for appendicitis.

* * *

WARWICK M. DOWNING, attorney of Denver, Colo., and former vice president of Reiter-Foster Oil Corporation, has been made a member of the Colorado-Wyoming production committee under the oil code.

* * *

O. K. WING, treasurer of Phillips Petroleum Company, who has been critically ill at Johns Hopkins Hospital at Baltimore, Md., has recovered sufficiently to be able to return to his home at Bartlesville, Okla.

* * *

W. M. PECK, former head of the Pure Oil Company's land department in Michigan, has been named assistant general manager of Pure's production division in the State, succeeding PLINY DEL VALLE, who recently resigned to accept a new position in the Southwest.

* * *

WALTER WYCKOFF, manager of the Gordon Oil Company's office in Mount Pleasant, Mich., and his wife, recently returned after a two weeks' trip through the Southwest on which they visited Kentucky, Tennessee, Arkansas, Missouri, and Oklahoma. Mr. Wyckoff attended an oil conference in Tulsa on the trip.

CHARLES EARLE, of the motor transport division of Sinclair Prairie Oil Company, is making a tour of Texas.

* * *

R. S. SHANNON, of Denver, Colo., general superintendent of the Rocky Mountain region for the Continental Oil Company, was in Casper, Wyo., on company business.

* * *

EUGENE POWER, of Santa Monica, Calif., inspector for the Union Oil Company, recently visited Lethbridge, Edmonton, and other Alberta points on a tour of inspection for his company.

* * *

W. F. IRWIN has returned to Vancouver, British Columbia, from a trip to Alberta where he inspected the Moose Dome structure in behalf of lease-holding interests who are contemplating development.

* * *

A. S. BUNTE, engineer for Shell Petroleum Corporation at Greenwich, Kans., has returned to his home in Greenwich with MRS. BUNTE, who underwent an appendectomy in a Tulsa hospital two weeks ago.

* * *

MR. and MRS. T. K. BISHOP have returned to Basin, Wyo., after a trip to Pennsylvania, where they were called by the death of Mr. Bishop's mother. Mr. Bishop is manager of the Wyoming Gas Company.

* * *

T. C. HELLER, purchasing agent, Twin State Oil Company, Tulsa, is enjoying a late vacation.

* * *

N. R. CRAWFORD, Dowell Incorporated, Midland, Mich., was in Tulsa on company business last week.

* * *

L. H. PRICHARD, president, Anderson-Prichard Oil Company, Oklahoma City, Okla., is now on a business trip to California.

* * *

WIRT FRANKLIN, Oklahoma City, Okla., is now in Washington, D. C., attending meetings of the Planning and Coordination Committee.

* * *

W. S. MORRIS, Consolidated Oil Corporation, New York City, was a visitor to the Tulsa office of Sinclair Prairie Oil Company last week.

* * *

BRUCE MATLOCK, district scout for the Gypsy Oil Company, has been transferred from the Great Bend district, Kansas, to Roswell, N. Mex.

* * *

B. F. COOPER, Cooper-Keller Oil Company, Houston, Tex., has returned from the Minneapolis, Minn., office of the company where he has been the past six months.

* * *

W. B. BENDELER, Oklahoma City, Okla., and JOHN B. SCHUYLER, Los Angeles, Calif., both with Baash-Ross Tool Company, were in Tulsa on company business last week.

* * *

JOSE MALUGUER, general director of the Spanish Petroleum Syndicate, left New York City last week on the Europa of the North German Lloyd line on a return trip to Spain.

* * *

CHARLES B. JONES, division manager of Socony-Vacuum Oil Company, Inc., accompanied by MRS. JONES, returned last week on the Chapalin of the French line from a European trip.

DO YOU REMEMBER?

From The Oil and Gas Journal Files

25 Years Ago

November 1, 1909

Geologist John W. Otley credits the Savage Brothers, Al and Jess, two West Virginians, with the discovery of oil in the Gulf Coastal plain about seven years before the Lucas well came in on Spindletop. They drilled 50-barrel initial producers at Sour Lake, Texas, at a depth of 250 to 300 feet, using cable tools.

Miss Lydia Hanszen, of Beaumont, Tex., land commissioner for the J. M. Guffey Petroleum Co., and oil purchaser for the Gulf Pipe Line Co., has resigned to go into business for herself. Miss Hanszen started with the Gulf organization as a stenographer and was promoted steadily to a place of great responsibility. Her brother, Harry Hanszen, succeeds her.

Argue & Compton, of Tulsa, veteran operators, returning from Wyoming, report that the scarcity of railroads, rapacious freight rates and the remoteness of prospective oil fields, will delay the development of that otherwise very promising oil state.

20 Years Ago

October 29, 1914

If present plans work out certificates for Oklahoma oil for future delivery will be negotiated on the New York Consolidated Stock Exchange. It is hoped by this method to relieve present conditions in the industry brought about by overproduction and its resultant low prices.

In the first half of 1914 the Gypsy Oil Co. had the largest production in Oklahoma, 3,904,828 barrels. Prairie Oil & Gas Co. was second with 3,523,156 barrels, and the Barnsdall Oil Co. third with 1,704,807 barrels.

The Cushing Field in Oklahoma is producing 175,000 barrels of oil per day. It is the largest field in the world up to this time.

The Cushing Field in Oklahoma produced 191,000 barrels per day on October 25. No other field has ever approached Cushing in quantity of flush production.

10 Years Ago

October 30, 1924

From March, 1923, to October 25, 1924, the production of California exceeded 600,000 barrels per day. Last week it dropped to 599,450 barrels per day. California averaged 720,000 barrels per day in 1923 and will average over 625,000 barrels per day in 1924.

Isaac Canfield, a pioneer in the oil industry, dies in Grand Junction, Colo., at the age of 85 years. He moved to Titusville, Pa., in 1860 and was in the oil business from that time until his retirement on account of old age. He is said to have been the first man to shoot a well. Mr. Canfield was a brother-in-law of Doctor Roberts, inventor of the oil well torpedo.

J. R. SCHWABROW, petroleum engineer in the U. S. Geological Survey offices at Casper, Wyo., has returned from a trip to various oil operations on Federal owned lands in Colorado, New Mexico, and Utah. He was accompanied by MRS. SCHWABROW.

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JOHN W. STEELE, formerly with the U. S. Geological Survey in the Rocky Mountain offices, has been appointed secretary of the production and transportation subcommittee of the Planning and Coordination Committee with headquarters in Washington, D. C.

* * *

R. E. HARDWICKE, Fort Worth, Tex., attorney, who has devoted much of his time in the past three years to oil proration litigation, has been retained by the Kettleman North Dome Association of California to represent it at a hearing in Washington, D. C., December 3.

* * *

L. M. TIDD, credit manager for Black, Sivalls & Bryson, Inc., at Oklahoma City, Okla., is making a business trip through Texas and to points in Louisiana. A. A. ARRAS, Fort Worth, Tex., representative for the company, accompanied Mr. Tidd to Louisiana.

* * *

G. R. WHITNEY, general office manager of the Chemical Process Company, Breckenridge, Tex., was married to MRS. MYRTLE ROMINGER, of Cisco, Tex., in Tulsa, on October 21, leaving immediately for the Century of Progress at Chicago, and eastern points on their honeymoon.

* * *

M. A. WILSON has been appointed general auditor for the Empire Companies at Bartlesville, Okla. He has been associated with the Doherty interests since January 1, 1913, when he joined the City Light & Water Company at Amarillo, Tex., as an office boy. Mr. Wilson succeeds the late O. P. WARLICK.

* * *

FRANK SCOUTER, of the Standard Oil & Gas Company, was selected president of the East Texas Geological Society at its annual meeting, taking the place of the outgoing president, JAMES HUDNALL. Other officers elected were JOHN CLARK, Magnolia Petroleum Company, secretary-treasurer; WALLACE RALSTON, Sun Oil Company, vice president; A. E. WENDLANDT, Humble Oil & Refining Company, executive committeeman.

* * *

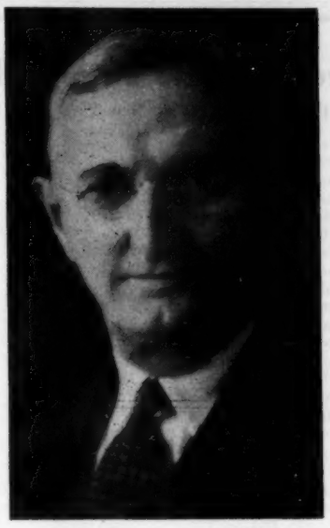
D. A. LITTLE, president of the Magnolia Petroleum Company, Dallas, Tex., has been elected president of the newly organized Dallas Petroleum Club by the board of governors. RUSSELL S. McFARLAND, of the Texas Seaboard Oil Company, was elected vice president, and HARRY MORLANG, of the Oil Well Supply Company, secretary-treasurer. The grillroom atop the Baker Hotel is to be remodeled into club quarters which will be ready before the American Petroleum Institute annual meeting in that city, November 12 to 15.

* * *

H. E. WRIGHT, affectionately known as "Colonel" to his many friends, has retired from the ranks of the Humble Oil & Refining Company, having served this company and its original organizers for over 20 years. Mr. Wright, who recently received his 20-year service button, entered the lease department of the old Humble Oil Company, organized by GOVERNOR R. S. STERLING and his associates, on March 2, 1914, later becoming affiliated with the present Humble Oil & Refining Company in 1918. At his retirement, Mr. Wright was connected with the geologic, lease and scouting department, which he entered in 1924. The Humble Club voted Mr. Wright a life membership. A handsome gold watch was presented to Mr. Wright by his associates and coworkers.

Often Spokesman for Oil Industry

It frequently has fallen to Judge C. B. Ames, chairman of the board of the Texas Corporation, to speak for the oil industry in recent years. His counsel has been sought in crises, and his public statements have played an important part in making the position of the industry clear to the Government and to the millions of consumers of petroleum products.



JUDGE C. B. AMES

Judge Ames entered the oil business through the legal phases of its operations. He started the practice of law in Oklahoma City, Okla., in 1899. With the spread of the oil business to the Mid-Continent his practice gradually became specialized in that industry. He became the local counsel for the Texas Company and in 1923 moved to New York as general counsel. Five years ago he was made a vice president of the parent company and was also a member of the board of directors and the executive committee.

During this period his years of study of industrial developments resulted in his being called upon often in the solution of problems of the oil business. These services led to his selection in November, 1932, as president and active executive head of the American Petroleum Institute, a leave of absence being granted by the Texas Company. He continued in this capacity until May, 1933, when he returned to the company as chairman of the board, the position he now holds.

Judge Ames was born in Macon, Miss., in 1870. In 1890 he graduated from the Emory and Henry College, Virginia, and two years later from the law school of the University of Mississippi. During his residence in Oklahoma starting in 1899 he was called upon for various public services. From 1911 to 1913 he was presiding judge, Division No. 1 of the Supreme Court Commission of Oklahoma. During the World War he served as Federal food administrator for Oklahoma and chairman of the Liberty Loan Committee for Oklahoma City. He also served as a member of the State Council of Defense. In 1919 and 1920 he was assistant to the Attorney General of the United States in Washington, D. C.

MAURICE WEST GUINESS, Shell Company, Ltd., Puerto Rico, has been named chairman, ad interim, of the marketing committee for Puerto Rico during the absence of CHAIRMAN E. NOONAN, who is leaving the island on a combined business and vacation trip which will extend into the new year.

* * *

HOWARD HUGHES, of the Hughes Tool Company, who has produced several successful motion pictures, recently purchased the palatial 320-foot steam yacht, Southern Cross, one of the largest and most luxurious pleasure craft afloat, and now has the largest yacht on the Pacific Coast. Heretofore E. L. DOHENY'S yacht, Casiana, a 254-foot craft, was the largest in Pacific Coast waters.

* * *

GEORGE J. MILBURN, consulting geologist and petroleum engineer of San Francisco and Los Angeles, Calif., is making his yearly trip through Texas and New Mexico. He will visit East Texas, the new Houston County area and Mission area, Hidalgo County, and attend the American Petroleum Institute meeting in Dallas, Tex., November 12-15, before returning to the Pacific Coast.

* * *

A. C. STEWART, southern division sales manager; E. W. HUTTON, manager of lubricating oil sales, and E. H. BADGER, advertising manager of the Union Oil Company, Los Angeles, Calif., were hosts last week to 75 guests and members of the press in commemoration of the company's forty-fourth birthday. DOCTOR ULRIC BRAY, assisted by several chemists from the Union's Wilmington laboratory, introduced the company's new solvent treated motor oil to the guests by a number of comparative tests using propane as a solvent medium.

CHRISTIAN ENGELBRECHT, who is connected with the German operations of the Socony-Vacuum Oil Company, Ltd., returned to Germany last week after a visit to the New York offices of the company.

* * *

WILLIAM BELL, president, National Stripper Well Association, Robinson, Ill., has recently been in Kansas and Tulsa, visiting some of his oil properties and attending meetings of the Stripper Well Association.

* * *

A. L. CASHMAN, head of Skelly Oil Company land department, Tulsa, made a trip to the company's branch office at Midland, Tex., last week, accompanied by J. E. MORERO, geologist for Skelly Oil Company.

* * *

JAMES C. HEWLETT, formerly in the accounting department of the Mid-Continent Petroleum Corporation, Tulsa, has accepted a position with the Standard Oil Company of Venezuela with headquarters at Carapito, Venezuela.

* * *

LEE YEALY, of Shelby, Mont., superintendent of operations for the Ohio Oil Company in northern Wyoming, recently carried off the honors at a trapshooters' tournament held at Cardston, Alberta. He made a score of 97 out of a possible 100.

* * *

H. SCHUPPLI, from The Hague, Netherlands, and a trainee with Shell Petroleum Corporation, attended the scout check meeting in Artesia, N. Mex., recently. He attended with MR. CLINE, West Texas and New Mexico scout for the Shell organization.

* * *

DR. VICTOR G. GABRIEL, consulting geophysicist, Houston, Tex., announces he will deliver two nonmathematical lectures on the "Principles and Interpretation of Geophysics," the first Monday night, November 5, and the second Friday night, November 9. The lectures will be given at the Houston Public Library.

* * *

J. D. REARDON, traffic manager of the Union Oil Company, and LLOYD GUERRA, manager of teh Fluor Corporation, were recently elected directors of the Los Angeles Transportation Club at the annual meeting of that group.

* * *

ERIC C. G. ENGLAND, director of the Vacuum Oil Company, and CHARLES F. LUMB, director of the Petroleum Storage & Finance Corporation, are both members of the board of General Aircraft, Ltd., a new company registered in London, England.

* * *

BURKS WHITE, oil and gas operator in Michigan for several years, returned to Texas last week to represent the Mason Oil Company, subsidiary of the Michigan Gas & Oil Company, formerly the New York Petroleum Royalty Corporation. Mr. White came to Michigan about four years ago as a representative of the New York corporation. He later operated privately and as a representative of the Old Dutch Oil & Gas Company, of Muskegon. He will be located in Midland, Tex.

* * *

WILFRED E. GOODAY, who for over 12 years, has been manager of the technical department of the Vacuum Oil Company, London, England, has resigned. He was presented by his colleagues with a memento of his service, the presentation being made by W. McCARGO CROSS, one of the directors, son of WILSON CROSS, the chairman. Mr. Gooday is a member of the Council of the Institution of Petroleum Technologists, an Associate of the Royal School of Mines, a member of the Imperial College of Science and Technology, and a member of the Institution of Mining and Metallurgy. In 1918 he was a member of the Inter-Allied Petroleum Commission to the United States.

MARKET RECORD OF OIL SECURITIES

Active Oil Stocks Listed on New York Stock Exchange

Compiled by Carl H. Pforzheimer Co., 25 Broad Street, New York City, Members New York Stock Exchange and New York Curb Exchange

1934 High	1934 Low	Week ended October 27 Sales	Week ended October 27 High	Week ended October 27 Low	Week ended October 27 Close	Stocks—	Total shares outstanding	Par value	Dividend rate	Payable or last paid	1933 High	1933 Low	1932 High	1932 Low	1931 High	1931 Low
55⅝	39	4,300	42	39	39	Amerada Corp.	774,875	N.P.	50eQ	7-31-34	47⅝	18½	22¾	12	23	11¼
35¼	21½	9,200	23¾	23	23¼	Atlantic Refining	2,673,834	$25	25eQ	9-15-34	32½	12⅜	21⅞	8⅝	23⅝	8⅝
10	5¾	6,300	6⅜	6	6¼	Barnsdall Corp. A	2,248,795	$5	....	5-11-31	11	3	7	3⅜	14½	4
19¼	6⅞	19,300	9	8	8	Columbia Gas & Elec.	11,610,036	N.P.	....	5-15-34	28⅛	9	21	4¼	45⅝	11⅜
14¼	7¼	21,400	7⅞	7⅜	7½	Consolidated Oil Corp.	14,218,835	N.P.	14c	10-31-34	15⅜	5	9	4	15⅞	4½
22¾	15¾	17,200	16⅝	15¾	16⅛	Continental Oil of Delaware	4,738,593	$5	25c	10-31-34	19⅝	4⅞	9⅜	3⅝	12	5
23½	12	4,100	17⅝	16	16	General Asphalt	387,149	$10	....	6-15-32	27	4⅝	15½	4¾	47	9⅜
5⅝	2½	700	2¾	2⅝	1⅝	Houston Oil (new)	1,098,618	$25	....	10-17-30	7⅜	1⅞	5⅜	1⅛	14⅛	3
3⅜	1	200	1⅛	1	1	Louisiana Oil Refining	1,302,158	N.P.	....	.....	4	⅝	2¼	½	4½	1
14¾	9⅛	1,900	10⅝	9⅞	10	Mid-Continent Petroleum	1,857,912	N.P.	25c	11-15-34	16	3¾	8⅞	3¾	16¾	5
21⅛	10	200	11	11	11	National Supply of Delaware	382,591	$25	....	5-15-31	28⅝	4	13	3½	10¼	5
15⅞	8½	13,700	9¼	8½	8⅞	Ohio Oil Co.	6,563,107	N.P.	15c	9-15-34	17⅝	4¾	11	5	19½	5⅛
8⅞	5½	500	6¾	6⅛	6¾	Pacific Western Oil	1,000,000	N.P.	25c‡	10-25-33	9½	3	8	3	15	2⅞
2½	⅝	100	⅝	⅝	⅝	Panhandle P. & R.	198,770	N.P.	....	.....	4¼	⅜	1¼	¼	4¼	⅝
20¾	13⅜	6,900	14¼	13½	14	Phillips Petroleum	4,154,687	N.P.	25c	12-1-34	18¾	4¾	8⅛	2	16⅝	4
16⅜	8	2,400	8⅝	8¼	8¼	Plymouth Oil Co.	990,261	$5	25eQ	9-29-34	17⅝	6¾	12½	6	18	6
14⅞	6⅜	4,500	6⅝	6⅜	6½	Pure Oil	3,038,370	N.P.	....	9-1-30	15⅜	2½	6½	2⅞	11⅞	3¼
39¼	31⅝	900	32⅝	31⅝	31⅝	Royal Dutch N. Y. shares	432,224	$14	$1.35	7-31-34	39¾	17⅝	23¾	12⅛	42⅝	13
38⅜	20¾	2,800	22⅝	21½	22	Seaboard Oil of Delaware	1,204,460	N.P.	15eQ§	9-15-34	43⅜	15	20⅝	6⅝	20¾	5½
11½	6	3,800	6½	6⅛	6⅛	Shell Union Oil	13,070,625	N.P.	....	6-30-30	11⅝	4	8¾	2½	10¼	2½
89	57	1,200	69⅞	66	67	Shell Union Oil pfd.	400,000	$100	....	7-1-31	61	28½	65¼	18	78	15
15½	7¼	14,500	14⅜	13⅜	13⅞	Simms Petroleum	461,000	$10	30c	8-1-34	12⅜	4⅞	7½	3¼	11	3½
11½	6	300	6¼	6⅛	6⅛	Skelly Oil	1,008,514	$25	....	12-15-30	9⅞	3	5¾	2½	12⅞	2
19⅞	12½	15,600	13⅝	13	13⅛	Socony-Vacuum	31,019,694	$25	15eQ	9-15-34	17	6	12¼	5¼	21	8⅜
42⅞	26½	38,500	30½	28¾	30⅝	Standard Oil of California	13,102,900	N.P.	25c	9-15-34	45	19½	31⅞	15⅛	51⅜	23⅛
32¾	23¼	13,000	24½	23¼	23⅜	Standard Oil (Indiana)	15,941,894	$25	25eQ	9-15-34	34	17	25⅛	13⅛	38½	13½
41	27	No sales ..	..	..	..	Standard Oil of Kansas	200,000	$10	50eQ	10-31-34	39⅞	12¾	16½	7	19	7¾
50⅛	39¼	23,500	41⅝	39¼	39½	Standard Oil of New Jersey	25,740,965	$25	50eSA	6-15-34	47½	22¾	37⅜	19⅞	52½	26
71	51½	1,500	71	70	70¼	Sun Oil	1,733,013	N.P.	25eQ†	12-15-34	59	35	39⅞	24⅜	45¼	26⅜
29⅜	19¾	13,500	20¾	19¾	20	Texas Corp.	9,486,417	$25	25eQ	10-1-34	30⅛	10⅜	18¼	9¼	36¼	9⅞
6½	2½	1,800	3	2¾	2⅞	Texas Pacific Coal & Oil	880,703	$10	....	12-31-29	6½	1⅝	4	1½	6½	1⅞
14⅜	8	6,600	8½	8	8	Tide Water Associated	5,618,672	N.P.	....	2-16-31	11¾	3⅛	5⅝	2	9	2⅛
85¼	64½	1,000	74¾	74	74¾	Tide Water Associated pfd.	666,524	$100	$1.50Q	10-10-34	65¼	23½	60	20	68	20½
20½	11½	4,200	14⅜	13¾	14¼	Union Oil of California	4,386,070	$25	25eQ	8-10-34	23⅜	8½	15⅜	8	26⅝	11
21¼	15⅝	1,000	20⅞	20⅜	20⅝	Union Tank Car	1,200,000	N.P.	30eQ	9-1-34	22⅝	10½	19¼	11⅜	25⅛	16
5¾	2½	1,600	2⅞	2½	2½	Wilcox Oil & Gas	424,839	$5	....	5-10-28	5½	2	8¾	2¾	9⅜	2¾

*Ex-dividend. †Plus extras in common stock. ‡Initial dividend. §Plus extras.

Active Oil Stocks Listed on New York Curb

Compiled by Carl H. Pforzheimer Co., 25 Broad Street, New York City, Members New York Stock Exchange and New York Curb Exchange

1934 High	1934 Low	Week ended October 27 Sales	Week ended October 27 High	Week ended October 27 Low	Week ended October 27 Close	Stocks—	Total shares outstanding	Par value	Dividend rate	Payable or last paid	1933 High	1933 Low	1932 High	1932 Low	1931 High	1931 Low
38	26	50	32	32	32	Buckeye Pipe Line Co.	200,000	$50	75eQ	12-15-34	39¾	25	35	17½	56	30
5½	2	2,300	2½	2	2¼	Carib Syndicate	579,000	25c	....	.....	7¾	¼	¾	¼	2⅜	¼
126½	115	100	123¼	123	123	Chesebrough Mfg. Co.	120,000	$25	$1Q†	9-29-34	129	71	90	53	129½	75
4¼	1½	25,300	1⅝	1½	1½	Cities Service	37,804,394	N.P.	....	6-1-32	6¼	1½	6⅞	1¼	20¾	5
3¼	¾	4,000	1⅛	¾	¾	Colon Oil	2,200,000	N.P.	....	.....	4	¼	1¼	¼	3⅛	¼
3⅞	1	3,200	1¼	1	1⅛	Cosden Oil	399,687	$1	....	.....	3⅞	1⅜	2⅞	¼	3¾	⅜
14⅜	9⅝	5,400	13	12⅝	12⅝	Creole Petroleum	6,974,356	$5	....	.....	12	4¾	3⅛	1¾	3⅞	1⅝
7½	4⅝	No sales ..	..	..	..	Darby Petroleum	509,696	$5	25c	7-25-34	8	2½	7⅛	1⅝	2½	1⅝
2¼	1	100	1	1	1	Derby Oil & Refining	263,162	N.P.	....	.....	2¾	⅞	3	1	6	1½
37	30	No sales ..	..	..	..	Eureka Pipe Line	50,000	$100	$1Q	11-1-34	41¾	20	35	18	36	19
76¾	49¾	1,200	53	50	50	Gulf Oil Corp.	4,538,101	$25	....	10-1-31	62	24	44¾	23	75½	25⅜
46⅜	33¼	4,700	40	37⅞	38	Humble Oil & Refining (new)	8,923,935	N.P.	25eQ	10-1-34	105½	40	55	35⅝	72	44½
16½	12⅝	14,400	16½	16⅛	16¼	Imperial Oil of Canada	26,857,152	N.P.	25eSA†‡	6-1-34	15⅞	6½	10⅞	6¼	18¼	7⅜
6⅞	3¾	100	4½	4½	4½	Indiana Pipe Line	300,000	$10	15eSA†	11-15-34	8	3⅛	7½	2¾	21¼	5½
30⅞	19⅜	12,800	30⅜	28¾	29¼	International Petroleum	14,247,088	N.P.	56eSA†‡	6-1-34	23½	8⅞	12¼	8	15½	7⅜
4	2⅛	3,400	3⅝	3⅜	3⅝	Louisiana Land & Exp.	3,000,000	N.P.	....	.....	2¼	1/16	2½	½	2	½
5⅞	3½	No sales ..	..	..	..	Lion Oil Refining	270,000	N.P.	....	10-27-30	9½	1¼	3½	⅞	6¾	1½
8⅜	4¼	2,600	5⅜	5	5	Lone Star Gas	5,382,723	N.P.	16eQ§	3-31-34	11⅞	4¾	11	3⅜	29	5½
5½	4	1,200	4¾	4⅜	4½	Mountain Producers	1,682,182	$10	15eQ	10-1-34	6½	2½	4¾	2⅛	5⅞	2
18⅛	13¼	800	14¾	14⅜	14¾	National Fuel Gas	3,810,183	N.P.	25eQ	10-15-34	20	10	14⅝	8	26½	9¾
9½	7⅜	No sales ..	..	..	..	National Transit	509,000	$12.50	40eSA	6-15-34	10	5½	10½	6	17½	5
2½	1⅜	800	2⅛	2⅛	2⅛	New Bradford Oil	1,445,202	$5	10c	9-15-34	2⅛	½	⅞	¼	1½	½
2¾	1	400	1¼	1⅛	1⅛	New Mexico and Arizona	1,000,000	$1	....	.....	1⅞	½	1¼	⅜	3	¾
4¾	3	300	3½	3¼	3½	New York Transit	100,000	$5	15eSA	10-15-34	4⅞	3	9¾	7½	14½	5⅞
7	4⅝	No sales ..	..	..	..	Northern Pipe Line	120,000	$10	25eSA	7-2-34	6½	4¼	5½	3⅛	35½	20
2⅝	⅞	3,900	1½	1⅜	1⅜	Pantapec Oil	1,608,700	N.P.	....	.....	3¾	⅛	⅝	1/16	2	⅜
3⅜	⅞	100	1⅛	1⅛	1⅛	Ryan Consolidated	296,931	N.P.	....	.....	4¼	⅝	2⅛	⅝	3	⅜
7¾	5½	1,400	6⅜	6	6	Salt Creek Producers	1,496,859	$10	20eQ	8-1-34	9¼	3½	5½	2⅞	7⅝	2¾
26½	17½	1,200	21¼	20½	20½	South Penn Oil	1,200,000	$25	30eQ	9-29-34	22⅛	11	16½	9⅝	23⅞	9¼
5½	4	No sales ..	..	..	..	Southern Pipe Line	100,000	$10	15eSA	9-1-34	6	2⅛	10	3¾	17	7
47	41	No sales ..	..	..	..	Southwest Penna. Pipe Lines	35,000	$50	$1Q	10-1-34	43	24½	37	27	42½	25
17⅝	14⅝	4,400	15⅝	15	15¼	Standard Oil of Kentucky	2,606,983	$10	25eQ	9-15-34	19¼	8⅜	15⅞	8⅞	23⅝	12⅛
16⅞	9	400	9¼	9¼	9¼	Standard Oil of Nebraska	190,822	$25	....	6-20-34	20½	11	19	10¼	36½	16
28½	12¼	1,700	13	12¼	12¼	Standard Oil of Ohio	753,740	$25	....	1-3-33	41	15½	30⅛	15½	62½	23
2	1/16	1,900	1⅛	⅞	⅞	Sunray Oil	1,162,840	$5	....	4-15-31	1½	¼	⅝	⅛	5¼	¼
11	4⅜	300	5¾	5¾	5¾	Texon Oil & Land	936,028	N.P.	15eQ†	9-29-34	13¾	6¼	10½	4½	12⅞	2½

*Ex-dividend. †Plus extras. ‡Payable in Canadian funds. §Payable in preferred stock.

Note—In comparing highs and lows for the several years in the two tables, it will be necessary to take into consideration cases where there have been stock split-ups.

Summary of Operations in All Fields for September, 1934

Summary of Wells Completed

	Comp.	Prod.	Dry	Gas
Penna. Grade fields	359	1,352	23	43
Central Ohio	58	331	11	29
Lima	9	28	2	3
Indiana	18	121	5	4
Kentucky	40	2,577	6	0
Michigan	35	24,919	8	7
Kansas	47	15,780	19	0
Oklahoma	101	51,248	26	3
North Central Texas	154	6,868	73	5
West Texas	61	14,553	14	0
Texas Panhandle	27	8,161	3	7
East Central Texas	14	343	5	2
East Texas	335	16,413	12	0
Gulf Coast Texas	101	27,406	34	6
Southwest Texas	101	8,847	60	5
North Louisiana	39	342	18	11
Gulf Coast, Louisiana	26	16,453	9	0
Arkansas	9	290	6	0
Mississippi	5	0	3	2
Montana	26	1,245	6	6
Wyoming	3	964	0	0
New Mexico	21	67,215	0	1
Total September	1,479	265,456	343	134
Total August	1,673	271,408	361	129
Difference	194	5,952	18	5

Rigs and Wells Drilling

	Rigs	Drlg.	Ttl.
Penna. Grade fields	80	191	271
Central Ohio	43	157	200
Lima	2	31	33
Indiana	1	44	45
Illinois	1	16	17
Kentucky	1	33	34
Michigan	99	153	252
Kansas	33	160	193
Oklahoma	98	382	480
North Central Texas	61	174	235
West Texas	49	179	228
Texas Panhandle	33	124	157
East Central Texas	21	55	76
East Texas	80	160	240
East Texas gas area	2	16	18
Gulf Coast, Texas	44	149	193
Southwest Texas	33	131	164
North Louisiana	37	81	118
Gulf Coast, Louisiana	26	99	125
Arkansas	7	32	39
Mississippi	5	8	13
Alabama	1	2	3
Montana	9	64	73
Wyoming	13	78	91
Colorado	3	34	37
New Mexico	13	58	71
Utah	1	14	15
Total September	796	2,625	3,421
Total August	742	2,803	3,545
Difference	54	178	124

Oklahoma Fields

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Osage	21	14,431	3	0
Lincoln	5	648	0	0
Creek	13	729	3	0
Muskogee	1	0	1	0
Okmulgee	4	12	2	1
Wagoner	1	25	0	0
Tulsa	3	10	1	1
Okfuskee	2	0	2	0
Oklahoma	5	5,309	0	0
Pottawatomie	3	1,560	3	0
Seminole	8	6,731	1	0
Hughes	5	2,206	1	0
Latimer	1	0	0	1
Murray	1	0	1	0
Pontotoc	5	75	2	0
Marshall	3	25	1	0
Jefferson	4	51	3	0
Stephens	3	21	1	0
Carter	2	19	0	0
Noble	4	16,503	0	0
Logan	1	2,893	0	0
Pawnee	1	0	1	0
Total September	101	51,248	26	3
Total August	152	69,383	49	3
Difference	51	18,135	23	0

Rigs and Wells Drilling

	Rigs	Dlg.	Ttl.
Atoka	0	13	13
Carter	1	14	15
Stephens	2	11	13
Johnson	0	1	1
Pushmataha	0	1	1
Jefferson	2	12	14
Marshall	1	8	9
Choctaw	0	1	1
Murray	0	2	2
Pontotoc	7	39	46
Comanche	0	4	4
Jackson	0	4	4
Garvin	1	3	4
Pittsburg	1	2	3
McClain	0	1	1
Hughes	2	12	14
LeFlore	0	1	1
Caddo	0	4	4
Pottawatomie	9	40	49
Seminole	7	25	32
Kiowa	0	2	2
Greer	0	1	1
Washita	1	1	2
Beckham	0	3	3
Cleveland	1	3	4
Okfuskee	7	11	18
Oklahoma	13	21	34
Okmulgee	4	18	22
Lincoln	2	8	10
Muskogee	0	2	2
Creek	6	48	54
Kingfisher	0	1	1
Logan	3	9	12
Blaine	0	1	1
Payne	0	2	2
Tulsa	0	2	2
Pawnee	0	3	3
Osage	22	37	59
Noble	4	7	11
Ellis	0	1	1
Alfalfa	0	2	2
Harper	0	1	1
Kay	1	0	1
Grant	1	1	2
Total September	98	382	480
Total August	80	433	513
Difference	18	51	33

Kansas Fields

Summary of Wells Completed

	Comp.	Prod.	Dry	Gas
Trego	1	126	0	0
Barton	1	506	0	0
Rice	6	3,272	1	0
McPherson	4	945	2	0
Greenwood	3	0	3	0
Reno	5	3,527	2	0
Butler	5	351	3	0
Sedgwick	4	3,011	1	0
Russell	2	1,664	0	0
Ellsworth	1	0	1	0
Rooks	2	474	0	0
Barton	1	0	1	0
Woodson	3	10	2	0
Elk	4	115	1	0
Harper	1	0	1	0
Harvey	1	1,216	0	0
Sumner	1	0	1	0
Cowley	1	50	0	0
Kingman	1	482	0	0
Total September	47	15,780	19	0
Total August	93	29,453	24	1
Difference	46	13,673	5	1

Rigs and Wells Drilling

	Rigs	Drlg.	Ttl.
Rooks	1	0	1
Osborne	0	1	1
Russell	10	20	30
Trego	0	1	1
Dickinson	0	1	1
Ellsworth	1	6	7
Rush	0	1	1
Rice	8	21	29
McPherson	2	18	20
Ellis	1	1	2
Barton	0	3	3
Stafford	1	3	4
Harvey	0	9	9
Reno	3	19	22
Butler	0	15	15
Sedgwick	4	21	25
Greenwood	0	1	1
Kingman	0	1	1
Sumner	0	4	4
Barber	0	1	1
Harper	0	1	1
Elk	0	6	6
Cowley	2	6	8
Total September	33	160	193
Total August	34	155	189
Difference	1	5	6

East Central Texas Fields

Summary of Wells Completed

County—	Comp.	Prod.	Abd.	Gas
Anderson	5	55	1	2
Cherokee	2	0	2	0
Gregg	158	8,809	5	0
Henderson	1	0	1	0
Limestone	1	0	1	0
Navarro	1	0	1	0
Rusk	109	5,091	1	0
Smith	14	722	3	0
Upshur	42	1,791	1	0
Van Zandt	6	288	1	0
Total Sept.	339	16,756	17	2
Total Aug.	383	19,780	13	1
Difference	44	3,024	4	1

Summary of Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Ttl.
Anderson	8	1	7	16
Cherokee	4	4	3	11
Ellis	1	1	0	2
Fannin	0	1	0	1
Freestone	3	2	1	6
Gregg	45	0	75	120
Henderson	0	1	2	3
Hopkins	0	1	0	1
Hunt	0	1	2	3
Kaufman	0	0	1	1
Lamar	0	1	0	1
Leon	2	1	1	4
Limestone	2	1	2	5
Morris	0	1	1	2
Nacogdoches	0	1	1	2
Navarro	0	3	2	5
Rains	0	1	1	2
Red River	0	4	0	4
Rusk	22	0	53	75
Smith	5	0	6	11
Upshur	4	0	19	23
Van Zandt	5	3	9	17
Wood	0	1	0	1
Total Sept.	101	29	186	314
Total Aug.	52	38	255	345
Difference	49	9	69	31

Texas Panhandle

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Carson	3	538	0	2
Gray	10	4,386	1	1
Hutchinson	6	1,517	0	1
Wheeler	8	1,720	2	3
Total September	27	8,161	3	7
Total August	62	22,944	0	6
Difference	35	14,783	3	1

Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Ttl.
Carson	0	1	8	9
Childress	1	0	1	2
Collingsworth	0	0	1	1
Dallam	0	1	0	1
Gray	12	4	49	65
Hemphill	0	1	1	2
Hutchinson	2	2	21	25
Moore	0	0	3	3
Randall	0	1	0	1
Wheeler	18	6	24	48
Total September	33	16	108	157
Total August	33	13	132	178
Difference	0	3	24	21

West Texas Fields

Summary of Wells Completed

County—	Comp.	Prod.	Abd.	Gas
Borden	1	0	1	0
Crane	2	227	0	0
Crockett	1	0	1	0
Ector	5	2,311	0	0
Fisher	2	175	2	0
Glasscock	7	228	2	0
Howard	6	1,601	0	0
Hudspeth	1	0	1	0
Loving	2	271	1	0
Pecos	5	1,891	0	0
Reagan	3	3,479	1	0
Runnels	2	380	0	0
Scurry	1	30	0	0
Taylor	1	0	1	0
Terrell	1	0	1	0
Val Verde	1	0	1	0
Ward	10	2,795	0	0
Winkler	9	1,065	2	0
Total Sept.	61	14,553	14	0
Total Aug.	60	15,039	13	0
Difference	1	486	1	0

Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Ttl.
Andrews	0	1	4	5
Brewster	0	1	0	1
Coke	0	1	0	1
Crane	0	2	1	3
Culberson	0	3	0	3
Dawson	0	1	0	1
Ector	4	10	11	25
El Paso	0	2	0	2
Fisher	2	2	8	12
Glasscock	3	2	5	10
Howard	2	8	11	21
Irion	0	3	0	3
Jones	1	3	9	13
Loving	1	1	1	3
Menard	0	1	0	1
Mitchell	2	0	2	4
Pecos	11	11	5	27
Presidio	0	1	0	1
Reagan	1	3	1	5
Reeves	0	3	0	3
Runnels	2	5	6	13
Schleicher	0	0	2	2
Scurry	0	1	1	2
Sterling	1	0	0	1
Sutton	1	0	0	1
Taylor	1	1	0	2
Terrell	0	2	0	2
Upton	0	2	5	7
Ward	11	6	19	36
Winkler	6	2	10	18
Total Sept.	49	78	101	228
Total Aug.	55	63	113	231
Difference	6	15	12	3

North Central Texas Fields

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Archer	36	2,462	15	0
Brown	4	65	2	0
Callahan	5	46	3	0
Clay	1	0	1	0
Coleman	4	0	2	2
Cooke	2	0	1	1
Comanche	1	0	0	1
Eastland	0	0	0	0
Foard	1	768	0	0
Jack	8	0	7	1
Johnson	1	0	1	0
Montague	5	99	1	0
Shackelford	16	446	6	0
Stephens	2	12	0	0
Wichita	21	346	12	0
Wilbarger	19	1,794	8	0
Young	28	830	14	0
Total September	154	6,868	73	5
Total August	166	8,486	88	4
Difference	12	1,618	15	1

Summary of Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Ttl.
Archer	24	4	32	60
Baylor	1	0	0	1
Brown	1	3	3	7
Callahan	1	2	6	9
Clay	0	0	1	1
Coleman	2	2	4	8
Comanche	0	2	1	3
Cooke	0	5	1	6
Denton	0	1	1	2
Eastland	1	1	8	10
Erath	0	1	0	1
Fannin	0	0	1	1
Foard	2	0	1	3
Haskell	0	1	0	1
Hamilton	0	0	1	1
Jack	2	5	5	12
Johnson	0	1	0	1
Lampasas	0	1	0	1
Montague	3	0	3	6
Palo Pinto	0	3	2	5
Parker	0	2	0	2
Shackelford	3	3	5	11
Stephens	1	1	2	4
Stonewall	0	0	1	1
Throckmorton	0	3	3	6
Wichita	7	6	7	20
Wilbarger	6	1	7	14
Wise	1	0	0	1
Young	6	5	26	37
Total September	61	53	121	235
Total August	58	65	121	244
Difference	3	12	0	9

Southwest Texas Fields

Summary of Field Operations

Field—	Comp.	Prod.	Abd.	Gas	Rgs.	Dlg.	Ttl.
Agua Dulce	1	0	1	0	1	0	1
Angelita	0	0	0	0	0	1	1
Caesar	1	0	0	1	1	1	2
West Cole	5	520	1	2	0	6	6
Cuevitas	0	0	0	0	0	1	1
North Dale	3	0	3	0	1	0	1
Dunlap	1	0	1	0	0	0	0
Govt. Wells	20	4,038	1	1	2	20	22
Jacobs	2	134	0	0	2	10	12
Jennings	0	0	0	0	1	0	1
Las Cuevitas	1	0	1	0	0	0	0
Las Escobas	2	30	0	0	0	0	0
Lucas	1	0	0	1	0	2	2
McNeil	0	0	0	0	1	0	1
North Pettus	3	160	2	0	2	5	7
Pied. Pintos	1	600	0	0	0	0	0
Sandia	1	0	1	0	0	0	0
Saxet	2	400	0	0	0	0	0
Seeligson	1	20	0	0	0	0	0
Sinton	1	0	1	0	1	2	3
Taylor	0	0	0	0	0	2	2
W. Tuleta	5	2,780	0	0	1	4	5
Von Ormy	1	0	1	0	0	1	1
Miscellaneous	49	165	47	0	20	76	96
Ttl. Sept.	101	8,847	60	5	33	131	164
Ttl. Aug.	70	8,385	30	5	46	144	190
Difference	31	462	30	0	13	13	26

Gulf Coast Fields

LOUISIANA

Summary of Field Operations

Field—	Comp.	Prod.	Abd.	Gas	Rgs.	Dlg.	Ttl.
Bay Junop	0	0	0	0	0	1	1
Bay St. Elaine	1	0	1	0	0	1	1
Black Bayou	0	0	0	0	0	2	2
Bosco	7	4,936	3	0	7	6	13
Caillou Isld.	0	0	0	0	1	1	2
Cameron Meadows	0	0	0	0	1	3	4
Edgerly	0	0	0	0	0	1	1
Gueydan	0	0	0	0	0	1	1
Hackberry	0	0	0	0	5	8	13
Iowa	2	2,745	0	0	1	6	7
Jennings	0	0	0	0	0	1	1
Lake Barre	0	0	0	0	0	5	5
Lk. Hermitge.	0	0	0	0	0	1	1
Lake Pelto	0	0	0	0	0	1	1
L. Wash'g'tn.	0	0	0	0	0	3	3
Leesville	6	5,797	0	0	3	11	14
Lockport	3	325	2	0	0	3	3
New Iberia	1	0	1	0	0	2	2
Port Barre	2	2,350	0	0	2	3	5
Roanoke	0	0	0	0	0	4	4
Sorrento	0	0	0	0	0	1	1
Sulphur	2	300	0	0	0	6	6
Sweet Lake	0	0	0	0	0	1	1
Vinton	0	0	0	0	0	6	6
White Castle	0	0	0	0	0	1	1
Miscellaneous	2	0	2	0	6	20	26
Ttl. Sept.	26	16,453	9	0	26	99	125
Ttl. Aug.	44	22,797	15	2	22	92	114
Difference	18	6,344	6	2	4	7	11

TEXAS

Summary of Field Operations

Field—	Comp.	Prod.	Abd.	Gas	Rgs.	Dlg.	Ttl.
Arriola	1	0	1	0	0	2	2
Barbers Hill	4	1,851	0	0	5	13	18
Batson	1	5	0	0	0	1	1
Blue Ridge	2	0	2	0	0	1	1
Boling	2	434	0	0	1	0	1
Buckeye	0	0	0	0	0	3	3
Clay Creek	2	360	1	0	0	3	3
Cleveland	1	622	0	0	0	0	0
Coleto Creek	1	0	1	0	2	4	6
Conroe	10	10,024	1	1	1	6	7
Damon Mnd.	0	0	0	0	0	3	3
Danbury	0	0	0	0	1	2	3
Dayton	0	0	0	0	1	0	1
Esperson	1	80	0	0	0	2	2
Fannett	1	0	1	0	0	1	1
Goose Creek	1	0	1	0	0	1	1
Greta	10	2,224	0	1	3	7	10
Hankamer	0	0	0	0	0	1	1
High Island	1	0	1	0	2	4	6
Hull	4	514	2	0	0	2	2
Humble	0	0	0	0	0	1	1
Keeran	1	100	0	0	1	2	3
Kitrell	1	720	0	0	1	1	2
Liberty	4	65	1	0	0	1	1
Livingston	0	0	0	0	1	2	3
Louise	0	0	0	0	0	2	2
Manvel	5	1,845	1	0	1	7	8
McFaddin-O'Connor	1	100	0	0	0	3	3
Markham	1	540	0	0	0	1	1
Mykawa	0	0	0	0	1	1	2
Orange	2	270	0	0	0	0	0
Orchard	1	864	0	0	0	1	1
Pierce Jctn.	3	200	1	1	1	3	4
Pledger	0	0	0	0	0	2	2

Port Neches.	1	336	0	0	0	2	2
Raccoon Bnd.	3	1,080	1	0	1	2	3
Refugio	6	868	0	2	0	5	5
Saratoga	1	15	0	0	0	2	2
Sour Lake ..	2	30	1	0	0	2	2
Stratton Rg.	0	0	0	0	0	1	1
Spindletop ..	1	106	0	0	0	0	0
Thompson ..	1	1,300	0	0	3	1	4
Tomball	7	2,853	1	0	2	10	12
Vanderbilt ..	3	0	2	1	2	0	2
Van Vleck ..	0	0	0	0	0	1	1
W. Columbia	0	0	0	0	0	2	2
Miscellaneous	15	0	15	0	14	38	52
Ttl. Sept.	101	27,406	34	6	44	149	193
Ttl. Aug. .	88	32,145	27	4	53	172	225
Difference.	13	4,739	7	2	9	23	32

Louisiana Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas*	Rigs	Drg.	Ttl.
Avoyelles ...	0	0	0	0	0	1	1
Blenville ...	0	0	0	0	1	2	2
Bossier	6	28	3	0	3	7	10
Caddo	11	24	2	6	8	19	27
Caldwell ...	0	0	0	0	0	2	2
Catahoula ..	0	0	0	0	0	1	1
DeSoto	2	0	2	0	2	13	15
East Carroll	1	0	0	1	1	0	1
Grant	0	0	0	0	0	1	1
LaSalle	0	0	0	0	1	1	2
Morehouse ..	0	0	0	0	1	1	2
Natchitoches	1	0	1	0	0	4	4
Ouachita. ...	3	0	0	3	0	3	3
Rapides	1	0	1	0	2	0	2
Red River ..	2	0	2	0	0	2	2
Richland ...	0	0	0	0	1	0	1
Sabine	9	290	5	0	13	23	36
Union Parish	1	0	0	1	2	1	3
Webster	2	0	2	0	2	0	2
Ttl. Sept. .	39	342	18	11	37	81	118
Ttl. Aug. .	35	736	16	5	34	84	118
Difference	4	394	2	6	3	3	0

*Gas production: Caddo, 58,650,000 feet; East Carroll, 25,000,000 feet; Ouachita, 9,500,000 feet; Union, 2,500,000 feet; total, 95,650,000 feet.

Arkansas Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl.
Bradley	0	0	0	0	0	1	1
Columbia ...	0	0	0	0	0	1	1
Hempstead .	0	0	0	0	0	4	4
Lafayette ..	2	0	2	0	2	2	4
Little River.	0	0	0	0	0	2	2
Lonoke	0	0	0	0	0	1	1
Miller	4	275	2	0	3	7	10
Nevada	1	15	0	0	1	0	1
Ouachita ...	0	0	0	0	0	7	7
Poinsett	0	0	0	0	0	1	1
St. Francis .	0	0	0	0	0	1	1
Union	2	0	2	0	1	5	6
Ttl. Sept. .	9	290	6	0	7	32	39
Ttl. Aug. .	11	225	9	0	7	34	41
Difference	2	65	3	0	0	2	2

East Texas Border Counties

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl.
Cass	0	0	0	0	0	2	2
Harrison ...	0	0	0	0	0	2	2
Marion	0	0	0	0	0	3	3
Panola	0	0	0	0	2	4	6
Shelby	0	0	0	0	0	5	5
Ttl. Sept. .	0	0	0	0	2	16	18
Ttl. Aug. .	1	0	0	1	2	15	17
Difference	1	0	0	1	0	1	1

Mississippi Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas*	Rigs	Drg.	Ttl.
Amite	0	0	0	0	0	1	1
Bolivar	0	0	0	0	1	0	1
Clarke	1	0	1	0	0	0	0
Greene	0	0	0	0	1	0	1
Hinds	1	0	0	1	0	0	0
Jones	0	0	0	0	0	1	1
Lamar	1	0	1	0	0	0	0
Lauderdale .	0	0	0	0	0	1	1
Monroe	0	0	0	0	0	1	1
Rankin	2	0	1	1	0	0	0
Scott	0	0	0	0	1	0	1
Simpson	0	0	0	0	1	1	2
Walthall	0	0	0	0	1	0	1
Warren	0	0	0	0	0	1	1
Washington .	0	0	0	0	0	1	1
Winston	0	0	0	0	0	1	1
Ttl. Sept. .	5	0	3	2	5	8	13
Ttl. Aug. .	4	0	2	1	6	10	16
Difference	1	0	0	1	1	2	3

*Gas production: Hinds, 15,000,000 feet; Rankin, 15,000,000 feet; total, 30,000,000 feet.

Alabama Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl.
Houston	0	0	0	0	0	1	1
Lamar	0	0	0	0	0	1	1
Pike	0	0	0	0	1	0	1
Ttl. Sept. .	0	0	0	0	1	2	3
Ttl. Aug. .	2	0	2	0	1	2	3
Difference	2	0	2	0	0	0	0

Rocky Mountain Area

NEW MEXICO

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl.
Eddy	1	40	0	0	1	9	10
Lea	17	67,130	0	0	9	17	26
McKinley ...	0	0	0	0	1	5	6
San Juan ...	2	45	0	0	1	12	13
San Miguel ..	0	0	0	0	1	3	4
Santa Fe ...	0	0	0	0	0	3	3
Torrance	1	0	0	1	0	0	0
Valencia	0	0	0	0	0	3	3
Miscellaneous.	0	0	0	0	0	6	6
Total Sept..	21	67,215	0	1	13	58	71
Total Aug..	11	21,827	2	0	11	72	83
Difference .	10	45,388	2	1	2	14	12

COLORADO

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Dig.	Ttl.
Elbert	0	0	0	0	0	2	2
Grand	0	0	0	0	0	2	2
Jackson	0	0	0	0	0	2	2
Larimer	0	0	0	0	0	4	4
Moffat	0	0	0	0	1	2	3
Park	0	0	0	0	0	2	2
Routt	0	0	0	0	0	2	2
Weld	0	0	0	0	0	1	1
Miscellaneous.	0	0	0	0	2	17	19
Total Sept..	0	0	0	0	3	34	37
Total Aug..	3	1,680	2	0	4	30	34
Difference .	3	1,680	2	0	1	4	3

WYOMING

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Dig.	Ttl.
Big Horn ...	0	0	0	0	3	7	10
Carbon	0	0	0	0	0	5	5
Converse	0	0	0	0	1	6	7
Crook	0	0	0	0	0	7	7
Fremont	0	0	0	0	0	7	7
Lincoln	1	2	0	0	0	4	4
Natrona	0	0	0	0	0	2	2
Niobrara	0	0	0	0	0	3	3
Park	1	960	0	0	1	6	7
Sublet	0	0	0	0	0	6	6
Sweetwater .	0	0	0	0	0	9	9
Uinta	0	0	0	0	0	6	6
Washakie	0	0	0	0	2	1	3
Weston	1	2	0	0	6	4	10
Miscellaneous.	0	0	0	0	0	5	5
Total Sept..	3	964	0	0	13	78	91
Total Aug..	4	1,005	0	0	19	73	92
Difference .	1	141	0	0	6	5	1

MONTANA

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Dig.	Ttl.
Big Horn ...	1	0	0	1	0	1	1
Carbon	0	0	0	0	0	3	3
Fergus	0	0	0	0	0	3	3
Glacier	12	1,037	4	1	8	22	30
Judith Basin.	1	0	1	0	0	0	0
Liberty	0	0	0	0	0	4	4
Petroleum ..	1	0	1	0	0	2	2
Phillips	2	0	0	2	0	3	3
Teton	0	0	0	0	0	3	3
Toole	9	208	0	2	0	17	17
Miscellaneous.	0	0	0	0	1	6	7
Total Sept..	26	1,245	6	6	9	64	73
Total Aug..	29	2,449	5	3	10	64	74
Difference .	3	1,204	1	3	1	0	1

UTAH

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Total Sept. ..	0	0	0	0	1	14	15
Total Aug. ..	0	0	0	0	1	14	15
Difference .	0	0	0	0	0	0	0

Eastern Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Allegany	15	15	0	0	1	3	4
Bradford 126		219	0	0	16	64	80
Clarion-Venango	6	5	2	0	0	8	8
Butler-Armstrong ..	2	0	1	1	1	3	4
S. W. Penna. ..	16	56	1	9	6	10	16
S. E. Ohio	39	396	9	6	16	26	42
W. Virginia ...	55	661	10	27	40	77	117
Total Sept....259		1,352	23	43	80	191	271
Total Aug...253		2,067	18	36	68	213	281
Difference ..	6	715	5	7	12	22	10

Central Ohio Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Ashland	6	11	0	4	1	3	9
Medina	10	105	1	2	5	6	11
Lorain	2	0	2	0	2	6	8
Holmes	1	0	1	0	2	6	8
Richland	0	0	0	0	0	3	3
Wayne	0	0	0	0	0	7	7
Summitt	0	0	0	0	2	1	3
Fairfield	2	0	0	2	1	2	3
Marion	0	0	0	0	0	1	1
Cuyahoga	2	15	0	1	0	0	0
Huron	0	0	0	0	0	1	1
Knox	2	0	1	1	3	7	10
Coshocton	2	6	1	0	1	7	8
Licking	4	48	0	2	3	4	7
Muskingum ...	4	100	2	0	0	10	10
Athens	2	0	0	2	4	11	15
Tuscarawas ..	2	7	0	1	4	0	4
Stark	2	0	0	2	6	21	27
Belmont	0	0	0	0	0	3	3
Guernsey	8	39	1	5	6	17	23
Crawford	0	0	0	0	0	1	1
Gallia	1	0	0	1	0	5	5
Scitio	0	0	0	0	0	2	2
Pike	0	0	0	0	0	2	2
Carroll	0	0	0	0	0	3	3
Vinton	0	0	0	0	0	4	4
Lawrence	2	0	1	1	0	3	3
Meigs	6	0	1	5	3	16	19
Total Sept. .	58	331	11	29	43	157	200
Total Aug. .	36	455	15	49	32	140	172
Difference ..	28	124	4	20	11	17	28

Lima Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Wood	0	0	0	0	0	3	3
Henry	0	0	0	0	0	2	2
Hancock	1	1	0	0	0	4	0
Allen	1	20	0	0	0	6	6
Auglaize	0	0	0	0	0	3	3
Hardin	2	3	0	1	0	1	1
Van Wert	0	0	0	0	0	3	3
Darke	0	0	0	0	0	1	1
Mercer	0	0	0	0	0	2	2
Shelby	0	0	0	0	0	1	1
Sandusky	1	4	0	0	0	1	1
Ottawa	0	0	0	0	0	1	1
Lucas	0	0	0	0	0	2	2
Seneca	1	0	0	1	0	3	3
Wyandot	3	0	2	1	2	2	4
Total Sept. .	9	28	2	3	2	35	33
Total Aug. ..	8	98	2	1	2	33	35
Difference ..	1	70	0	2	0	2	2

Indiana Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Gibson	4	45	1	1	1	3	4
Sullivan	0	0	0	0	0	3	3
Pike	0	0	0	0	0	3	3
Daviess	0	0	0	0	0	2	2
Warrick	0	0	0	0	0	4	4
Spencer	0	0	0	0	0	3	3
Harrison	0	0	0	0	0	1	1
Porter	0	0	0	0	0	2	2
Henry	0	0	0	0	0	1	1
Martin	0	0	0	0	0	1	1
Shelby	0	0	0	0	0	1	1
Hancock	0	0	0	0	0	1	1
Monroe	0	0	0	0	0	1	1
Jay	3	8	0	1	0	2	2
Perry	1	2	0	0	0	4	4
St. Joe	0	0	0	0	0	1	1
Dubois	2	0	2	0	0	1	1
Washington ...	1	0	0	1	0	0	0
Posey	1	20	0	0	0	1	1
Vanderburg ...	4	16	2	0	0	8	8
Delaware	0	0	0	0	0	1	1
Knox	1	30	0	0	0	0	0
Marion	1	0	0	1	0	0	0
Total Sept. .	18	121	5	4	1	44	45
Total Aug. ..	14	151	2	5	1	43	44
Difference ..	4	30	3	1	0	1	1

Michigan Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Midland	15	24,019	0	0	14	42	56
Isabella	7	170	3	3	20	30	50
Oceana	0	0	0	0	7	17	24
Gratiot	1	0	0	1	3	2	5
St. Clair	0	0	0	0	2	0	2
Clinton	0	0	0	0	1	0	1
Clare	0	0	0	0	3	0	3
Kent	0	0	0	0	1	2	3
Emmett	0	0	0	0	1	1	2
Cass	0	0	0	0	3	1	4
Montmorency	0	0	0	0	3	0	3
Sanilac	0	0	0	0	3	0	3
Newaygo	0	0	0	0	0	3	3
Saginaw	0	0	0	0	5	2	7
Shiawassee .	0	0	0	0	3	2	5
Allegan	0	0	0	0	2	1	3
Livingston ..	0	0	0	0	1	2	3
Alpena	0	0	0	0	1	0	1
Cheboygan .	0	0	0	0	0	1	1
Oakland	0	0	0	0	0	1	1
Monroe	0	0	0	0	0	1	1
Macomb	0	0	0	0	1	1	2
Genesee	0	0	0	0	1	0	1
Mecosta	3	0	0	3	4	5	9
Montcalm ..	4	130	3	0	1	10	11
Muskegon ..	0	0	0	0	5	7	12
Ogemaw	3	600	0	0	4	15	19
Gladwin	0	0	0	0	0	2	2
Eaton	0	0	0	0	0	1	1
Hillsdale	0	0	0	0	2	0	2
Lapeer	0	0	0	0	4	3	7
Arenac	1	0	1	0	0	0	0
Lenawee	0	0	0	0	1	0	1
Osceola	1	0	1	0	0	1	1
Bay	0	0	0	0	1	0	1
Ross	0	0	0	0	1	0	1
Wayne	0	0	0	0	1	0	1
Ttl. Sept. .	35	24,919	8	7	99	153	252
Ttl. Aug. .	37	9,403	7	5	108	120	237
Difference	2	15,516	1	2	9	33	16

Illinois Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Clark	0	0	0	0	0	4	4
Crawford ...	0	0	0	0	0	4	4
Marion	0	0	0	0	1	1	2
Jefferson ...	0	0	0	0	0	1	1
Clinton	0	0	0	0	0	1	1
Madison	0	0	0	0	0	1	1
Macoupin ...	0	0	0	0	0	1	1
Jasper	0	0	0	0	0	1	1
Bond	0	0	0	0	0	2	2
Ttl. Sept. .	0	0	0	0	1	16	17
Ttl. Aug. .	1	0	1	0	2	13	15
Difference	1	0	1	0	1	3	2

Kentucky Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Ohio	34	2,392	4	0	1	8	9
Hancock	6	185	2	0	0	3	3
McLean	0	0	0	0	0	3	3
Allen	0	0	0	0	0	2	2
Daviess	0	0	0	0	0	16	16
Total Sept. .	40	2,577	6	0	1	33	34
Total Aug. ..	56	2,870	16	3	2	39	41
Difference ..	16	293	10	3	1	6	7

Pipe Line Construction

HALF MECOSTA LINE LAID

MUSKEGON, Mich., Oct. 29.—More than half of the American-Michigan Pipe Line Co.'s natural gas line between the Austin Township, Mecosta County gas field and Greater Muskegon has been laid with 30 miles of pipe in the ditch.

The exact distance from the gathering line to Muskegon is 51½ miles. Favorable weather resulted in greater progress than expected with crews handling a peak of 12,000 feet, or more than 2 miles, in a single day. It is estimated now work will be completed and the line ready to run gas about November 10.

Harry Cabel, superintendent of the local gas plant and an employe of the company for many years, has been named pipe line manager. He also will continue his duties at the plant.

Work of drilling and preliminary adjustment of thousands of gas appliance burners in consumers' homes and places of business is being speeded to be completed simultaneously with completion of the line. About 4,000 of the 9,000 customers have been visited with the change-over crews completing about 250 installations daily.

NORTH MUSKEGON EXTENSION

MUSKEGON, Mich., Oct. 29.—Muskegon Gas Co. directors are considering a proposal of Mayor Ernest Eimer, of North Muskegon, that their distribution lines be extended to North Muskegon.

While no definite action was taken, Dean W. Flowers, vice president and general manager, announced the company may be interested in the project at a later date although nothing can be done this fall because of the present program of bringing natural gas to Muskegon and Muskegon Heights, two contiguous cities, from the Aystin township, Mecosta County, Field. It is estimated about 44,000 feet of 6, 4 and 2-inch line would be required to serve North Muskegon.

KENTUCKY GAS LINE

A 20-inch pipe line, 16 miles in length, is being considered by the Warfield Natural Gas Co. of Prestonburg, Ky., according to reports. The line will run from Clear Creek to Knott County, tying up with the company's gas developments in that county.

INLAND LINE COMPLETED

EMPORIA, Kans., Oct. 29.—The Inland Pipe Line Co. of Emporia has completed its gas line from the gas fields near Burrton to the town of Burrton and now is supplying fuel to Burrton's municipal gas distribution system, Lance C. Hill, Emporia, a director of the Inland company, has announced. Gas formerly was supplied to Burrton by the Doherty interests.

SIMRALL MAY TAKE LINE

MUSKEGON, Mich., Oct. 29.—Pure Oil Pipe Line Co. has suspended operations of its line in Ogemaw County, Michigan. The company's gathering system loading racks and other equipment may be taken over by the Simrall Pipe Line Co., of Mount Pleasant, it is reported.

SOUTHERN ONTARIO GAS LINE

CHATHAM, Ontraio, Oct. 27.—Rapid progress is being made with the new pipe line of the Southern Ontario Gas Co. connecting the main transmission line in the southern part of Kent County, Ontario, with the Dover Field where it will take production from F. H. Stover & Son's No. 1 gasser. Of the 11½ miles of line, 7 miles are strung, 2 miles digging and 1 mile laid. Part of the line is 6⅝-inch and part 6¼-inch pipe.

ALBERTA OIL ASSOCIATION

CALGARY, Alberta, Oct. 27.—At a meeting this week, tentative arrangements were discussed for reviving the activities of the Oil and Gas Association of Alberta.

NEW AND IMPROVED EQUIPMENT

New Type of Gauge Unit Is Put on Market by Cameron

The Cameron Iron Works, Inc., Houston, Tex., has added a second type of gauge unit to the Abercrombie-Shimek weight indicator and recorder, placing on the market the new duplex gauge unit consisting of a steam supply gauge and

a load-indicating gauge. While the design and construction are the same as those of the triplex gauge unit, the duplex gauge unit does not record, for permanent records, the drilling load, but gives the driller the weight of the drilling load at all times, by means of the indicating needle.

Like the triplex gauge unit, this new unit is mounted within a rigid, dust and weather proof case, and consequently the use of a steel box for mounting gauges therein is not used. The weight is indicated directly in thousands of pounds, and use of calibration tables for calculating actual load are unnecessary.

The new duplex gauge unit is used with the same diaphragm unit as the triplex gauge unit.

The steam gauge has a 500-pound per square inch movement and dial. The load-indicating gauge has adjustable dial to permit setting the gauge on zero in order to compensate for water head, cable stiffness, and the weight of the traveling block. In addition to suitable connections from the connection block to the gauge outlets the gauge is equipped with a large strainer which prevents scale and foreign material from entering either the gauge or the diaphragm unit. The condensate supply is brought to the gauge unit and passed through the strainer before reaching the steam gauge.

Development of New Valve Announced by Tuthill Pump

The Tuthill Pump Co., 131 West Sixty-third Street, Chicago, announces development of a new relief valve for industrial use and being introduced to the market in six sizes with two pressure ranges.

Model V is built in sizes from three-eighths NPT to 1½ NPT for relieving pressures from 5 to 35 pounds. Model VH covers the same sizes for relieving pressures from 35 to 100 pounds. The only difference between Model V and Model VH is in the springs, and springs are interchangeable.

Features listed by the manufacturer include construction in the form and shape of a pipe T, said to insure convenience of mounting in any position and to insure flexibility; spring compartment of valve vented to valve body proper, to insure positive action and construction of valve with relief pipe at right angles to inlet and outlet to simplify assembly and insure economy of mounting as well as provide freedom from chip-clogging.

Among the Equipment Houses

The Houston Oil Field Material Co., Houston, Tex., announces the opening of a branch store at Sam Fordyce, a new oil field in Hidalgo County, Texas. It is on the highway between Mission and Sam Fordyce, and store stocks are being moved in. Bob Lynch, formerly with the Republic Supply Co. in Southwest Texas, is in charge. C. P. Smith, store manager at Freer, will spend some of his time working the new Sam Fordyce Field.

—

The Jarecki Manufacturing Co. will open a field store in Jal, Lea County, New Mexico, with Matt Blair manager and Ernest Reynolds field salesman. A complete line of equipment will be carried.

—

The Allegheny Steel Co., of Brackenridge, Pa., has appointed O. E. Berg as district sales manager in the Southwest territory, with office at 4511 Stanford Street, Houston, Tex.

—

D. E. Bates, president of the Reo Motor Car Co., has announced that the Reo export department is to be under the supervision of Elijah G. Poxson, president of the Reo Sales Corp.

—

The Shand & Jurs Co., of Berkeley, Calif., has purchased the Brooks Engineering Corp., of Los Angeles, Calif., and will continue the manufacture of the Beco line of tank fittings and the Beco vapor recovery system.

—

Gears & Forgings, Inc., with general offices in Cleveland, Ohio, which went into receivership April 1, 1932, has effected a reorganization under the name of Ohio Forge & Machine Corp.

—

The Timken Roller Bearing Co. was awarded first place for the most effectively conceived and executed industrial advertising campaign of the year in the tool and equipment division of the National Industrial Advertisers Association at the annual convention recently held in Cincinnati, Ohio.

—

Undertaking an itinerary to include every oil producing country in South America, A. G. Haglund, vice president and works manager of the Axelson Manufacturing Co., left recently for Maracaibo, Venezuela. Mr. Haglund's trip has been planned with the idea of offering solutions of production problems.

—

The Dunigan Tool & Supply Co. has completed construction of a supply house at Monahans. S. W. Dykes of Midland, is representative for the company in West Texas.

—

The New England Alcohol Co., in which the Monsanto Chemical Co. owns a controlling interest, has let contracts for the construction of a dry ice plant. Dry ice will be produced from by-product carbon dioxide now wasted in the fermentation unit of the alcohol plant.

—

According to announcement by F. A. Merrick, president of the Westinghouse Electric Supply Co., Bonnell W. Clark has been appointed vice president and general manager of that company and both H. N. Gansman and R. J. Holtermann vice presidents.

—

At a meeting of the board of directors of Acme Tank Car Corp., the following officers were elected: G. R. Scanland, chairman executive committee, succeeding William M. Hager, and Robert Rogers, president, to succeed R. H. Davenport.

—

Interests of the Carbondale Machine Co. of Carbondale, Pa., have been consolidated with those of the Worthington Pump & Machinery Corp. in the general refrigeration field, operating in future as the Carbondale Machine Corp.

C. K. West, president, and P. W. Pitzer, vice-president and general manager of the Chemical Process Co. Inc., Breckenridge, Texas; E. G. (Swede) Rhemstrom, pilot (in center) and their new Waco cabin ship powered with Jacobs motor

Men Well Known in the Equipment Field

C. L. Cron, who for several years was associated with L. L. Rector in Wyoming oil fields and later served the Frick-Reid

C. L. CRON

Supply Corp. in North Texas, has been appointed Gulf Coast representative of the Rector Well Equipment Co., with headquarters in Houston, Tex. Since 1930, Mr. Cron had been in the natural gas business.

ARCH BOWMAN FORMS AGENCY

Arch Bowman, Sales Agent, 1044 Kennedy Building, Tulsa, has been organized by Arch M. Bowman, sales equipment buyer and manager for manufacturers. It will handle primarily Tulsa-made oil field equipment. Mr. Bowman already has signed contracts with the Tulsa Rig, Reel & Manufacturing Co., steel derricks and steel rig fronts; Maloney Tank Manufacturing Co., bolted steel tanks; Oklahoma Iron Works, rig irons and accessories, and Hanlon-Waters, Inc., oil and gas traps and accessory equipment. In addition to the foregoing heavy equipment items, Mr. Bowman says the new company will handle other items needed at the drilling or producing well including lumber and cement. Field service will be maintained in all active oil fields. Engineering problems involved in the selection and installation of this class of equipment are being handled by A. L. Day of Tulsa.

NEW G-E WELDING ELECTRODE

A new heavily coated arc-welding electrode, designated as G-E Type W-23, for the economical production of high-speed, high-quality welds in the flat position, has been announced by the General Electric Co. Type W-23 electrodes are suitable for either manual or automatic arc welding and will produce equally good results on either alternating or direct current. With the latter, reverse-polarity is used. Economy in the production of high-quality welds is gained by the ability of the electrode to operate at higher speeds, in larger diameters, and at higher current values than those commonly in use.

Michigan Fields

(Continued from Page 58)

County, struck a show of oil and gas in the upper Traverse and was casing before drilling ahead. Muskegon Development Co.'s No. 1 Frank Estey, NW NW SW Section 28, also West Branch Township, was drilling into the Dundee.

Melling Oil & Gas Co.'s No. 1 State, SE SE NW Section 6-21n-3e, Mills Township, also was nearing the Dundee, while W. C. Mee's No. 1 Gibbs, SW SE SW Section 30, same township, was shut down at 2,614 feet in the Dundee. McClanahan Oil Co.'s No. 1 C. Conard, NW NW NE Section 22, same township, was drilling at 2,200 feet. Two others were drilling in Ogemaw Township, four drilling in West Branch Township, four rigging or spudding, two shut down and two locations in the latter area.

Lapeer County

Lawrence P. Mytinger's No. 1 George Zimmer, NW SW SE Section 4-8n-9e, Oregon Township, Lapeer County, was plugged and abandoned as a dry hole. One other Oregon Township test was drilling and four were shut down.

Gratiot County

Ithaca Oil & Gas Co.'s No. 1 Thum, in Section 19, Elba Township, Gratiot County, was plugging back to test a 500,000-foot show of gas in the upper Traverse after striking water in the Dundee at about 2,900 feet.

Two other Gratiot County tests were drilling, one in Pine River Township and the other in Bethany Township.

Western Michigan

One small Monroe gasser was drilled in in the old Muskegon Township Field where two tests in a southeast extension area are expected to be drilled into the producing upper Traverse pay sands this week.

An initial open flow of about 150,000 feet a day was encountered in the West Michigan Consumers' Co.'s No. 10 Fred Figge heirs, NW SW Section 9-10n-16w, Muskegon Township, when it was drilled into the Monroe topped at 2,125 feet. Lower joint of the casing was collapsed Friday when it was shot for an attempted increase, making further gauge impossible at the week-end. A. S. Cochran's No. 3 Frank J. Durham, S SW Section 15, same township, and Lima Oil Corp.'s No. 1 W. R. Angell and Harry C. Spillman, Section 22, Muskegon Township, were drilling at about 1,500 and 1,200 feet, respectively, and expected to be drilled into the upper Traverse this week.

There was little activity in Oceana County where John B. Northcott had not yet started drilling his No. 2 Jane Pinder, NW NW Section 31-15n-16w, Elbridge Township. Rig has been moved in but state permit to drill had not yet been issued.

Wildcat Developments

Operators were awaiting with interest completion of Mellon-Pollock Oil Co. and Wittmer Co.'s No. 1 Elwyn J. Johnson, SW SE NE Section 1, Richmond Township, Osceola County, in the Dundee formation. It was drilling at about 3,300 feet.

One of the deepest drilling wells in the State also was believed nearing the Trenton formation in Livingston County. It is H. Snell and others' No. 1 William F. Zeeb, NW SE Section 34, Genoa Township, drilling at about 5,000 feet deep. Another Livingston County test also started drilling in Howell Township.

Four wildcats were getting under way in as many townships in Saginaw County, including tests in Albee, Birch Run, Chapin and Tittabawassee Townships, respectively.

Geosyn Oil Co., Inc., reported drilling through 50 feet of red rock in the No. 1 F. & B. Hnevsa, NE NE NW Section 34, Rush Township, Shiawassee County, in southeastern Michigan. Owosso Oil & Gas Syndicate's No. 1 James H. Van Pelt, NW NW NE Section 35, same township, was drilling below 1,700 feet.

T. F. Caldwell, Inc.'s No. 1 Beecher Mackey, NW SW SE Section 21, Lyon Township, Oakland County, also southeastern Michigan, was drilling below 1,100 feet.

A. L. Lyon's No. 1 H. Woodworth, SE SE SE Section 5, Benton Township, Eaton County, was still shut down at 3,100 feet.

New Locations

Seven new state permits to drill were issued. Two new Midland County locations are: Pure Oil Co.'s No. 8 A. C. Wyant, NE NW SW Section 16-13n-1w, Porter Township, and No. 3 Bond-Root, C N NE NE Section 3-13n-2w, Jasper Township. Two new Isabella County locations were: Pure's No. 1 State-Isabella, NW NE NE Section 33-15n-3w, Denver Township, offset to a recent new Dundee producer in semiwildcat territory, and Old Dutch Oil & Gas Co.'s No. 1 James T. Walton, C SE NW Section 36-16n-4w, a new Vernon Township gas test.

Robert T. Jones and E. Arthur Durham of Sistersville, W. Va., took out a permit for No. 1 Russell Miller, SW NE SE Section 20-22n-2e, in the West Branch Township, Ogemaw County, area. Weber Oil Co. will try another wildcat test on the Albert and Mary Stepanski lease, NE NE SW Section 14-15n-4e, Kawkawlin Township, Bay County.

A former permit issued to William F. Brown for No. 1 Ripelle has been transferred to the Michigan Exploration Co., Inc., for No. 1 Byron Youmans, C SE SE Section 34-13n-7w, another gas test in Millbrook Township, Mecosta County.

Extensive drilling for gas is planned in Bingham Township, Clinton County, by Alfred Doughty, former mayor of Lansing and backer of the Central Michigan Pipe Line Co., seeking to supply the state capital with natural gas.

Oklahoma Fields

(Continued from Page 48)

in moving in on the locations reported last week, and Blackstock and others dug pits for No. 4 Hardin D, a gas test, in SE SE NW Section 29-2-7; Louall Drilling Co. made a location for No. 3 Craddock, SW NE NE Section 25-2-6. W. A. Delaney made a location for No. 2 Hardin, SE SW NW Section 30-2-7. Operations in the field are being pursued in Section 24, 25, 27 and 36-2-6, and in Sections 16, 19, 20, 28, 29, 30 and 31-2-7.

McClain County

Carter Oil Co. and Magnolia Petroleum Co.'s test, No. 1 Harrison, C NW NW Section 28-3-5w, McClain County, was drilling at 7,056 feet. It had sand at 6,980-10 feet showing oil.

Southern Counties

In Jefferson County, Farlyn Oil Co. completed No. 24 Seay, 985 feet north and 840 feet west of SE cor. Section 3-7s-5w, a 40-bbl. pumper at 1,239-60 feet.

In Marshall County C. M. Hapgood's No. 1 Adams, NW SE SW SE Section 31-7s-6, made a 10-bbl. completion at 539-42 feet. Mitchell & Kilbourne completed No. 1 Snell, NW cor. Section 31-7s-6, a 15-bbl. pumper at 507-20 feet.

In Stephens County, Heenan, Finley and others' No. 1 Woolsey, NW cor. SE, Section 10-3s-6w, was dry and abandoned at 440 feet.

Ben Barnett and others' No. 1 Lynn, SW NE NE Section 31-1s-2w, swabbed and flowed 217 bbls. of oil in 24 hours from a sand series at 1,691-2,001 feet, and was completed.

Rocky Mountain Area

(Continued from Page 66)

Murphy, NE NE Section 21-3n-24, on the Clay Basin structure in Daggett County, near the Colorado-Montana boundary, tested 12,000,000 feet of wet gas in the Dakota sand at 5,652 feet, total depth. Gas previously had been discovered in the Frontier. The gas in this test will be killed so the hole can be carried deeper into the Dakota and possibly into lower formations in search of oil.

Renewed activity is being shown in the Virgin oil field in Washington County, southwestern Utah, where a new operation was reported spudding this week in Jerome L. Andrus, trustee's No. 1, C SE NW Section 6-41s-11w, northeast of the town of Virgin. The objective is the sands in the Moenkopi in the lower Triassic. This test is being financed by a group of Spokane, Wash., capitalists and C. W. Buskirk, geologist of Salt Lake City, made the location. Mr. Buskirk, who will supervise the drilling of this test, has spent many years in studying the Utah formations and making cross-sections and he looks with favor upon the Washington County area. There are a number of structures in that district which have never been thoroughly tested and the presence of oil in the shallow pool at Virgin City is considered ample basis for the belief that ultimately one or more good pools will be discovered. Other drilling in the area is in prospect.

Escalante Exploration Co.'s No. 2 Escalante, NW cor. NE Section 19-43-15w, on the Bloomington Dome, has taken a core barrel test of an oil sand below 4,100 feet. Results of the test have not yet been ascertained.

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VAN POOL—3½ Royalty acres, O. L. & L. L. Swain 48 acre fee. 6 wells. 302 feet Oil sand. Pure Oil Co. operating lease. Aug. run check $148.65, Sept. $133.33. Base Price $3,200. Good merchantable title. Federal Trade reports furnished.
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WANTED — Gas Plant Chemist having knowledge of Absorption Plant and Stabilizer in the Petroleum Industry; also, actual operating experience. Advise age, education, experience and enclose photograph. Address Box G-391, The Oil and Gas Journal, Tulsa, Okla.

Situations Wanted

WOMAN stenographer, engineering, refining, wants position. Address Box G-401, The Oil and Gas Journal, Tulsa, Okla.

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JOHN MORRIS, Seventh Floor, 1237 Market Street, Philadelphia, will help float small deal. No stock selling. Send full facts in first letter.

JAMES E. MILLER CO., 207½ E. Third St., Tulsa, Okla., will co-operate with responsible parties seeking aid in financing projects of higher order.

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ATTRACTIVE OIL PROPERTIES
Drilling blocks, Leases and Royalties. Renewed activities East from discovery well. The hot spot of new Cherokee County field. Still opportunity to get some of best holdings at reasonable prices. All deals handled open and above board. Let me have your orders. E. W. COLE, Box 262, Rusk, Texas.

WANT TO PURCHASE 100 bbls. of production in the south Arkansas, north Louisiana, or eastern border of Texas area. Must have locations on which additional wells can be delivered. Write, giving full description of property. Address Box G-371, The Oil and Gas Journal, Tulsa, Okla.

WANTED WILDCAT. Eastern capital will drill test well. Oklahoma or Texas if geology good and sizeable block. Give full information first letter. Address Box G-373, The Oil and Gas Journal, Tulsa, Okla.

NEW MEXICO Oil and Gas Leases and royalties. Send 50 cents in stamps for new State Oil Map of New Mexico. Roy G. Barton, Clovis, New Mexico.

BUY LAND—2½ acres, clear deed, for $75, $5 down, $5 month, in California's next prospective oil and gas field. Well down 660 ft. now. Kimbrough, 729 San Fernando Bldg., Los Angeles, Calif.

NEW MEXICO—My weekly scout report furnishes complete and reliable information on New Mexico developments. Send for copy. W. S. Patterson, Santa Fe, N. Mex.

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Holder extensive freehold oil rights North end Turner Valley, Alberta, would lease on advantageous terms to party undertaking drilling operations. Producing wells in neighborhood. Particulars on application to Box 402, Calgary.

FOR SALE — Oil and gas leases in shallow oil territory and on well defined structures. Will furnish 500 acres, drill and case two wells for $2,000. W. P. HARLEY, Bowling Green, Ky.

LEASE on 640-acre block in Dawson County, Montana, for a well. Favorable geological report. Address Box G-390, The Oil and Gas Journal, Tulsa, Okla.

HAVE dandy working interest in sand production Seminole area, showing approximately fourteen months payout at $7,500. This includes $4,000 physical equipment. ACT QUICKLY. Write Box 501, Tulsa, Okla.

CO-OPERATIVE financing solicited for drilling shallow oil wells in proven territory in Wagoner Co., Okla. Only moderate sums needed. Small hazards, trustworthy treatment. Address Box G-400, The Oil and Gas Journal, Tulsa, Okla.

COLLEGE PARK LOTS, in fee, all royalty, under Community Lease, in line between the Oklahoma City and Edmond Fields. Attractive prices. Write for maps and information. G. E. Fisher, 518 Key Bldg., Oklahoma City, Okla.

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Will leave St. Louis at 6:30 pm, Memphis at 10:45 pm, November 10 and arrive in Dallas at 12:15 pm the next day. In addition to the latest type Pullman equipment the Special will carry an air-conditioned diner and air-conditioned deluxe lounge car, and will follow the route of the famous Sunshine Special. Three trains daily leave St. Louis for Dallas at 1:40 pm, 6:30 pm and 2:00 am, and Memphis at 7:05 pm, 10:45 pm and 8:00 am.

P. J. NEFF
Ass't. Chief Traffic Officer
1601 Missouri Pacific Bldg.
St. Louis, Mo.

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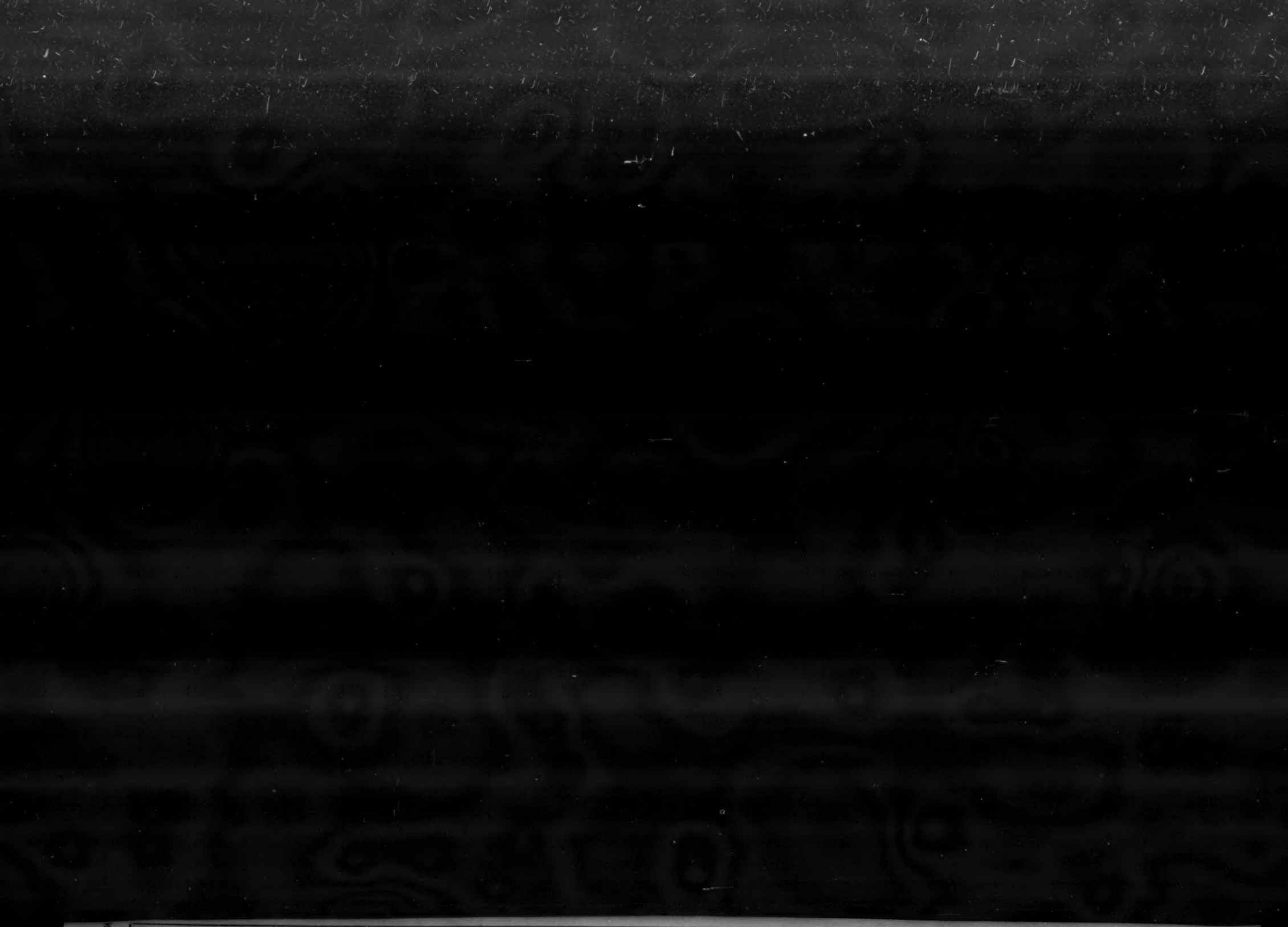
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